DOCUMENT RESUME

ED 327 821 CS 010 378

AUTHOR Pollock, John S.; And Others
TITLE Language Development Component Compensatory Language Experiences and Reading, CLEAR-Reading Recovery Program, 1989-90. Final Evaluation Report.
INSTITUTION Columbus Public Schools, Ohio.
PUB DATE Dec 90
NOTE 89p.; For 1988-89 report, see ED 315 748.
PUB TYPE Reports - Research/Technical (143). -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Compensatory Education; Early Intervention; Grade 1; High Risk Students; Individualized Reading; Primary Education; Reading Achievement; Reading Comprehension; *Reading Diagnosis; *Reading Improvement; *Reading Instruction; Reading Programs; Reading Research; *Remedial Reading; Underachievement
IDENTIFIERS *CLEAR Reading Recovery Program; *Columbus Public Schools OH; Education Consolidation Improvement Act Chapter 1; Metropolitan Achievement Tests

ABSTRACT

The 1989-90 Compensatory Language Experiences and Reading-Recovery (CLEAR-RR) Program of the Columbus, Ohio Public Schools was implemented to provide early intervention to 514 underachieving first-grade pupils who appeared unlikely to learn to read successfully without intensive instruction. Specially trained teachers provided one-on-one half-hour daily lessons during the school year. The 184 pupils included in the final pretest-posttest analysis had received 60 or more instructional lessons or were successfully discontinued from the program and reported valid scores for the pretest and posttest. The major evaluation effort was to be accomplished through the administration of the Metropolitan Achievement Tests (MAT6). Results indicated that the program met each of the three desired outcomes: (1) over half of the students had a normal curve equivalent gain of 3.0 or better; (2) 90% of the students were not retained in the first grade; and (3) 95% had parental involvement in the program. Findings support continuation of the CLEAR-RR program. (Eight additional recommendations and 24 tables of data are included; survey instruments are attached.) (RS)

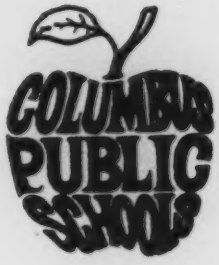
****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Elementary and Secondary Education Act - Chapter 1

FINAL EVALUATION REPORT
LANGUAGE DEVELOPMENT COMPONENT
COMPENSATORY LANGUAGE EXPERIENCES AND READING
CLEAR-READING RECOVERY PROGRAM

December 1990

ED327821



Written by:

John S. Pollock
Professional Specialist

Under the Supervision of:

E. Jane Williams, Ph.D.

Data Analysis by:

Kathy L. Morgan
Professional Specialist

Under the Supervision of:

Richard A. Amorose, Ph.D.

Columbus (Ohio) Public Schools
Department of Program Evaluation
Gary Thompson, Ph.D., Director

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Gary E. Thompson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CS010378

Elementary and Secondary Education Act - Chapter 1

FINAL EVALUATION REPORT
LANGUAGE DEVELOPMENT COMPONENT
COMPENSATORY LANGUAGE EXPERIENCES AND READING
CLEAR-READING RECOVERY PROGRAM

1989-90

ABSTRACT

Program Description: The purpose of the 1989-90 Compensatory Language Experiences and Reading-Reading Recovery (CLEAR-RR) program was to provide early intervention to underachieving first-grade pupils who appeared unlikely to learn to read successfully without intensive instruction. The program featured individualized one-on-one lessons or small group instruction for pupils waiting for individualized service provided by specially trained teachers. The lessons and group instruction were based upon diagnostic instruments designed to provide a comprehensive assessment of the pupil's development of reading and writing strategies.

The CLEAR-RR program was piloted in Columbus Public Schools during the 1984-85 school year, with the 1989-90 school year being the sixth continuous year of the program. The program was a joint effort of educators in the Columbus Public Schools, the College of Education of The Ohio State University, and the Ohio Department of Education. During 1989-90 the CLEAR-RR program was located in 31 elementary schools, had a staff of 66 teachers (29.0 FTEs) and served 514 pupils. Teachers typically served half-time in the program and half-time as first-grade teachers.

Time Interval: For evaluation purposes the CLEAR-RR program started on September 25, 1989 and continued through May 17, 1990. Pupils included in the final analyses must have received 60 or more instructional lessons or have been successfully discontinued (completed) from the program and have a valid pre- and posttest score on a nationally standardized achievement test.

Activities: To help pupils develop reading strategies, daily 30-minute individualized lessons or 45-minute small group sessions included a variety of instructional activities, such as reading and re-reading books while the teacher recorded their strategies and errors, writing and reading their own stories, letter identification, and sound analysis of words.

Achievement Objective: Pupils were to receive CLEAR-RR instruction until they were ready to be successfully discontinued from the program. Discontinued pupils were those who successfully completed the program according to (a) predetermined levels on diagnostic measures indicating that the pupils were reading at the average level for the district, and (b) teacher judgment that the pupils had developed effective reading strategies and could learn in the normal classroom setting without extra individual help.

Evaluation Design: The evaluation design included three desired outcomes: (a) at least 50 percent of the pupils who were discontinued or who had received 60 or more lessons would gain at least 3.0 normal curve equivalent (NCE) points in total reading, the gain being measured on a nationally standardized achievement test; (b) at least 75 percent of the pupils who were discontinued or who had received 60 or more lessons would not be retained; and (c) at least 75 percent of parents whose children were discontinued or received 60 or more

lessons would become involved in the program. In addition to the three desired outcomes, five evaluation questions were included in the evaluation design based upon two major program goals: to develop and provide the CLEAR-RR program for first grade children, and to adopt and apply the necessary inservice program for teachers. Questions were asked in the following areas: (a) service patterns of pupils; (b) performance levels of CLEAR-RR pupils on a standardized test of reading; (c) classroom teacher ratings of pupils served by CLEAR-RR during the 1988-89 school year and classroom teacher attitudes regarding the Reading Recovery program; (d) costs of the CLEAR-RR program versus other compensatory programs; and (e) long term effects.

The major evaluation effort was to be accomplished through the administration of the Metropolitan Achievement Tests, Level Preprimer, Form L, 1985 (MAT6) for pretesting and Level Primer, Form L, 1985 (MAT6) for posttesting. Analyses of the standardized test data included percentiles, districtwide average NCE scores, and pretest-posttest NCE gains. Locally constructed instruments were used to collect enrollment/attendance, parent involvement, and survey (attitude) data. District computer files were used for retention data.

Major Findings/Recommendations: The CLEAR-RR program served 514 pupils in 1989-90, 191 (37.2%) who received individual service only, 150 (29.2%) who received group service only, and 173 (33.7%) who received both individual and group service. For the 364 pupils who received individual service at some time during the year, average pupil enrollment was 101.6 days, average pupil attendance was 84.1 days, and the average number of instructional lessons was 53.0.

The treatment group consisted of the 218 pupils who received individual service at some time during the year and were either discontinued (144) or received 60 or more lessons but not discontinued (74). Program developers have estimated that most pupils need approximately 60 lessons to complete the program. Of this group, 184 pupils had reported and valid scores for both the MAT6 pretest and posttest and were included in the evaluation sample.

Each of the three desired outcomes for the 1989-90 CLEAR-RR program were met. Of the 184 pupils in the evaluation sample, 68.5% (126) had an NCE gain of 3.0 or better (the desired outcome was 50.0%). Of the 218 pupils in the treatment group, retention data were available on 213. Of these, 90.6% (193) were not retained in grade one. Of the 218 treatment group pupils, 95.4% (208) had parental involvement in the program (the desired outcomes for retention and parent involvement were 75.0%).

The mean NCE scores on the pretest and posttest were 18.9 (national percentile rank 7.0) and 31.1 (national percentile rank 18.5) respectively. The average growth was 12.2 NCEs. Overall, 111 (60.3%) of the 184 evaluation sample pupils gained 7.0 or more NCEs. Thirty-one (16.8%) of the evaluation sample pupils reached the average NCE (47.5) for the district as a whole. The percentages of pupils who were at various percentile levels on the posttest were as follows: (a) 15.2% (28) were at the 50%ile or above (grade level); and (b) 77.2% (142) were below the 37%ile and still eligible for Chapter 1 services.

The Classroom Teacher Survey included ratings related to the reading performance in 1989-90 of pupils who received CLEAR-RR in 1988-89. On a scale that ranged from 5 (very successful) to 1 (very unsuccessful), the average rating on four reading items were as follows. For grade 1 (retained) pupils, the average ratings ranged from 3.11 to 2.78. For grade 2 pupils, the average

ratings ranged from 3.41 to 3.04. By pupil category, discontinued pupil average ratings for the four items ranged from 3.74 to 3.34, compared with 2.81 to 2.58 for not discontinued pupils. Of the teachers responding to the survey who had the CLEAR-RR program serving children at their school during 1989-90, 79.7% (47) found the program to be of value to their pupils, and 83.9% (47) found the funding for the program to be appropriate.

The cost per pupil served in the 1989-90 CLEAR-RR program ($2,129) indicated that CLEAR-RR was expensive in comparison to the other compensatory programs, with costs per pupil served of $1,151 for CLEAR-Whole Language (grade 1) and $667 for the Instructional Assistant program.

Results of the analyses of the long-term effects of CLEAR-RR revealed the following. Of the former CLEAR-RR pupils who were in a school and at a grade level where a compensatory education program was in operation in 1989-90, 45.6% (82) of the pupils from the 1987-88 treatment group and 46.3% (69) of the pupils from the 1988-89 treatment group were still being served in a compensatory education program. When tested in second grade, the district average NCE score in Vocabulary was reached by 11.5% (12) of the pupils from the 1988-89 treatment group. The district average NCE score for Vocabulary was 50. In Reading Comprehension, the district average NCE score (48) was reached by 16.1% (15) of the pupils in the 1988-89 treatment group. In Total Reading the district average NCE score was reached by 12.5% (15) of the pupils in the same treatment group, with the district average NCE score in Total Reading being 47. Of the 579 pupils from the 1987-88, 1988-89, and 1989-90 treatment groups who remained in the Columbus Public Schools through November 1990, 72.9% (422) followed a normal grade-level progression. The retention rates for grade 1 were: 15.2% for the 1987-88 treatment group, 21.6% for the 1988-89 treatment group, 13.7% for the 1989-90 treatment group, and 16.5% for the three treatment groups combined. The percentages of pupils from the treatment groups who were served in special education were: for the 1987-88 treatment group, 14.3% in November 1988, 16.5% in November 1989, and 18.9% in November 1990; for the 1988-89 treatment group, 14.7% in November 1989 and 17.1% in November 1990; and for the 1989-90 treatment group, 9.3% in November 1990. Pupils were served more frequently for communication disorders related to speech and hearing problems in the year directly following their enrollment in CLEAR-RR, with increasing numbers of pupils served for developmental handicaps and learning disabilities in subsequent years.

Based on evaluation results it is recommended that the CLEAR-RR program be continued, with attention given to the following additional recommendations: (a) establishing a consistent instructional model to be used in all program schools; (b) identifying pupils needing special education instruction at the earliest possible date; (c) continuing to closely monitor program funding; (d) including only one-on-one individual service in the evaluation of Reading Recovery; (e) exploring ways to reduce the amount of time program teachers spend with record keeping; (f) bringing the standardized testing program used in Reading Recovery in line with the district testing series; (g) establishing absolute criterion for discontinuing pupils and exploring the reasons pupils who have previously received Reading Recovery service are later enrolled in compensatory programs; and (h) exploring the reasons for retention of pupils who have previously received Reading Recovery service.

Elementary and Secondary Education Act - Chapter 1

FINAL EVALUATION REPORT
LANGUAGE DEVELOPMENT COMPONENT
COMPENSATORY LANGUAGE EXPERIENCES AND READING
CLEAR-READING RECOVERY PROGRAM

December 1990

Program Description

The purpose of the 1989-1990 Compensatory Language Experiences and Reading-Reading Recovery (CLEAR-RR) program was to provide early intervention to underachieving first-grade pupils who appeared unlikely to learn to read successfully without intensive instruction. To accomplish this purpose the program featured individualized one-on-one lessons 30 minutes daily provided by specially trained teachers. Also, a 45-minute group session for pupils waiting for individualized service was conducted once a day. The lessons and group sessions were based upon diagnostic instruments which were designed to provide a comprehensive assessment of the pupil's development of reading and writing strategies.

The CLEAR-RR program began in Columbus Public Schools during the 1984-85 school year, with a pilot program at 6 schools, serving 70 pupils taught by 14 teachers. During 1989-90, the program served 514 pupils at 31 schools, with a teaching staff of 66 teachers (29.0 FTEs--Full Time Equivalents). Table 1 shows staffing, number of schools, and pupils served for the six years of the program's existence.

CLEAR-RR teachers normally were assigned to schools in teams of two. Each teacher served half-time in the CLEAR-RR program and half-time as a first-grade teacher. During the half-day the teachers served in the program they worked with 4 or 5 pupils individually for 30 minutes each. One member of the team taught Reading Recovery in the morning while the other member taught a first grade class. Their assignments were reversed in the afternoon. Additionally, one member of the team instructed a group of 5-7 pupils during one 45-minute session during the day.

In 1989-90 the CLEAR-RR program was located in the following 31 elementary schools.

Schools Served by the
CLEAR-Reading Recovery Program
1989-90

Arlington Park	East Columbus	Kent	Reeb
Avondale	Fair	Koebel	Second
Beck	Fairwood	Lincoln Park	Southwood
Broadleigh	Franklinton	Linden	Sullivant
Cranbrook	Heyl	Livingston	Trevitt
Dana	Highland	Main	Weinland Park
Deshler	Hubbard	Medary	Windsor
Eakin	Hudson	Ohio	

Schools were chosen for inclusion in the program according to the percent of pupils attending a school who were eligible for a free or reduced priced lunch (F & RPL). Those schools with the highest percentage F & RPL are included in the program each year, with the total number of schools determined by the availability of funding for that year.

Table 1

Staffing, Schools and Pupils Served
CLEAR-Reading Recovery Program
Columbus Public Schools
1984-1990

School Year	Teachers	Teacher Full-Time Equivalents (FTE)	Schools	Pupils Served
1984-85[a]	14	7	6	70
1985-86	30	16	12	224
1986-87	52	26	20	335
1987-88	57[b]	29	26	393
1988-89	49[b]	23.8	26	283
1989-90	66[c]	29.0	31	514[d]

[a]Pilot year.
[b]Plus support staff including 3 teacher leaders and 1 Ohio State University affiliated teacher.
[c]Includes 5 teacher leaders and 3 teacher leaders-in-training.
[d]Includes 150 pupils with group service only.

The 61 program teachers received support from 5 teacher leaders who served as trainers, resource teachers, and program coordinators. The teacher leaders taught a required credit course for the first-year Reading Recovery teachers (11 teachers out of 61) and provided inservice training for the experienced program teachers (47 teachers out of 61). Additionally, 3 of the 61 teachers received extended training to become future teacher leaders.

At the beginning of the year, classroom teachers selected first-grade pupils who appeared to be most in need of reading help to take the Diagnostic Survey of reading and writing tests: Letter Identification, Ohio Word Test, Concepts About Print, Writing Vocabulary, Dictation Test, and Text Reading Level. These tests were also administered at various times throughout the school year as pupils entered or exited the program and again at the conclusion of the program year.

Pupils were selected for the CLEAR-RR program based on two criteria: (a) a qualifying score on a selection test (Metropolitan Achievement Test, 1978, Level Primer, Form JS) and (b) low scores on the Diagnostic Survey. Scores at or below the 36th percentile on the selection test indicated that the pupils were qualified to be served in the ESEA Chapter 1 funded CLEAR-RR program. Low scores on the diagnostic tests further indicated that the pupils were not likely to learn to read successfully in a regular classroom environment without extra individual help. Selection of pupils occurred prior to administration of the program norm-referenced pretest (Metropolitan Achievement Tests-MAT6, 1985, Preprimer, Form L).

Each pupil enrolled for individual service in the program spent approximately the first 10 days "Roaming In the Known." During this period the CLEAR-RR teacher built rapport with the pupil and provided an opportunity for the pupil to use the strategies he or she already knew in meaningful reading and writing activities. Once the Reading Recovery lessons began, a familiar pattern was established. A typical 30-minute lesson included most or all of the following activities.

1. Two or more familiar books from previous lessons were selected by the pupil to be read to the teacher.

2. The teacher made a running record while the pupil read the book that was introduced to the pupil and attempted on the previous day. During this time the CLEAR-RR teacher changed the focus from instruction to observation. Meaning, structure, and visual cues were analyzed to determine which cues were used or neglected by the pupil. Each day the teacher carefully recorded the pupil's development of reading strategies (e.g., self-monitoring, searching for cues, cross-checking, self-correcting) or ability to determine the meaning of continuous text.

3. During letter identification, plastic letters were used on a magnetic board.

4. The pupil dictated a story and then learned to write and read it with the teacher's help.

5. During sound analysis of words from written story, the pupil was encouraged to say the words slowly and write what could be heard.

6. A completed story was cut into separate words, which were scrambled, and then rearranged in the correct order by the pupil.

7. A new book was introduced by the teacher.

8. The new book was attempted by the pupil.

When it was determined by the CLEAR-RR teacher, in consultation with the classroom teacher and the teacher leader, that a pupil had made sufficient progress to work successfully in the normal classroom setting without extra help, the pupil was recommended to be discontinued. Discontinued pupils were defined as those who had successfully completed the program according to predetermined levels on the diagnostic measures and had been released from the program. When pupils left the program (e.g., were discontinued, moved from the school, were placed in special programs), pupils from the group service or on a waiting list entered the program.

Pupils enrolled for group service participated in many of the same activities as pupils enrolled for individual service. Group sessions often involved shared reading and writing activities, guided reading of charts and stories, and independent reading and writing activities. The major purpose of group service was to provide additional reading and writing instruction for pupils so that they would need fewer lessons for discontinuance when selected for individual service. Pupils in group service could be discontinued from the program through the same process as pupils receiving individual service.

Evaluation Design

For program year 1989-90, three desired outcomes were established for the CLEAR-Reading Recovery program.

Desired Outcome 1:

> At least 50 percent of the program pupils (pupils discontinued or having had 60 or more lessons) will gain at least 3.0 normal curve equivalent (NCE) points in total reading. Gain will be measured by a nationally standardized achievement test.

Desired Outcome 2:

> At least 75 percent of program pupils will not be retained.

Desired Outcome 3:

> At least 75 percent of parents of program pupils will become involved in the program through observations, conferences or home participation.

In addition to the desired outcomes, an evaluation design was developed based on two goals identified from the 1984-85 proposal:

1. To develop and provide the CLEAR-RR program for first-grade pupils.

   The individual child who has been identified as being "at risk" of failure has recovered essential reading strategies and can function satisfactorily in the regular classroom.

2. To adapt and apply the necessary inservice program for teachers.

   To implement the Reading Recovery techniques, teachers will receive intensive training over the period of a year while simultaneously

implementing the program with children through clinical and peer-critiquing experiences guided by a skilled instructor.

Based on these two goals, five evaluation questions regarding the 1989-90 CLEAR-RR program were developed. The questions focused on the following areas: service patterns, pretest-posttest performance on a standardized test of reading, attitudes of professional staff, costs of CLEAR-RR versus other compensatory programs, and long-term effects of the program. The specific evaluation questions and analyses for each are listed below.

Question 1 What were the service patterns of pupils in the CLEAR-Reading Recovery program?

Analysis 1.1 Number of pupils who were served.

Analysis 1.2 Number of pupils who were discontinued.

Analysis 1.3 Demographic characteristics of pupils who were served.

Analysis 1.4 Demographic characteristics of pupils who were discontinued.

Question 2 What were the performance levels of CLEAR-Reading Recovery pupils on a standardized test of reading?

Analysis 2.1 Number and percent of pupils reaching the 50%ile in Total Reading on the MAT6.

Analysis 2.2 Number and percent of pupils reaching the 37%ile in Total Reading on the MAT6.

Analysis 2.3 Number and percent of pupils reaching the average NCE for the district in Total Reading on the MAT6. (Analysis will be based on available data. Availability of data will come from schools involved in other programs requiring total school testing.)

Analysis 2.4 Number and percent of pupils who have shown a gain of seven NCE points between pretest and posttest in Total Reading on the MAT6.

Analysis 2.5 Analysis of central tendency and distribution of NCE scores on the pretest and posttest of Total Reading on the MAT6.

Question 3 What were the teacher ratings in 1989-90 of pupils who were served by CLEAR-Reading Recovery during the 1988-89 school year? What were the attitudes of these teachers regarding the CLEAR-Reading Recovery program?

Analysis 3.1 Frequency counts, percents, and content analysis of the survey of teachers who had pupils in 1989-90 who were served by CLEAR-RR in the 1988-89 treatment group (Classroom Teacher Survey).

Question 4 What were the costs of the CLEAR-Reading Recovery program compared to other compensatory programs?

Analysis 4.1 Costs per pupil of each program.

Question 5 What were the long-term effects of the CLEAR-Reading Recovery program?

Analysis 5.1 Number and percent of pupils in the 1987-88 and 1988-89 CLEAR-RR treatment groups who in 1989-90 attended a school where a compensatory program was available and who were served by a compensatory program.

Analysis 5.2 Number and percent of pupils in the 1988-89 CLEAR-RR treatment group scoring at or above the average NCE of the district in Vocabulary, Reading Comprehension, and Total Reading on the Comprehensive Test of Basic Skills (CTBS) in April 1990.

Analysis 5.3 Number and percent of pupils in the 1987-88 and 1988-89 CLEAR-RR treatment groups scoring at or above the 37%ile in Vocabulary, Reading Comprehension, and Total Reading on the CTBS in April 1990.

Analysis 5.4 Number and percent of pupils in the 1987-88 and 1988-89 CLEAR-RR treatment groups scoring at or above the 50%ile in Vocabulary, Reading Comprehension, and Total Reading on the CTBS in April 1990.

Analysis 5.5 Number and percent of pupils in the 1987-88, 1988-89, and 1989-90 CLEAR-RR treatment groups who followed a normal grade level progression.

Analysis 5.6 Number and percent of pupils in the 1987-88, 1988-89, and 1989-90 CLEAR-RR treatment groups who were later identified and served in a special education class.

The evaluation design provided for the collection of data in the following five areas of operation for the overall program.

1. Teacher Census Form (TCF) was completed by program teachers to obtain staffing information, including employee status, periods of program instruction, school assignment, and Chapter 1 involvement (see p. 49, Appendix A).

2. Pupil Enrollment Form (PEF) was completed by program teachers upon official entry of each pupil into the program. Information included pupil name, date of birth, program teacher name, school, and date of pupil enrollment in program (see p. 51, Appendix B).

3. Pupil Census Form (PCF) was a computer generated preprinted form used by program teachers to record enrollment/attendance data, number of lessons, parent involvement, discontinued status, and service patterns for each pupil served (see p. 53, Appendix C).

4. The Metropolitan Achievement Tests (MAT6, 1985) was used as the pretest and posttest for all pupils in the CLEAR-RR program. This test series has empirical norms for fall and spring, established October 1-31, 1984, and April 8 to May 15, 1985. The description of the MAT6 pretest and posttest is as follows:

	Level	Form	Recommended Grade Range	Subtests	Number of Items
Pretest	Preprimer	L	K.0-K.9	Total Reading	54
Posttest	Primer	L	K.5-1.9	Vocabulary	15
				Word Recognition Skills	36
				Reading Comprehension	38
				Total Reading	89

The MAT6 tests were administered by classroom and program teachers. Pretesting occurred September 18-22, 1989. Posttesting occurred April 2-6, 1990. All testing was done on level, as indicated in the table above.

5. The CLEAR-Reading Recovery Classroom Teacher Survey was used to obtain information from teachers instructing pupils who were served by the CLEAR-RR program during the 1988-89 school year. Data collection was completed in May 1990 (see pp. 55-58, Appendix D).

Data collection for the CLEAR-RR program also included the district computer files which were used for retention data. Inservice evaluation information, data which were not specified in the CLEAR-RR evaluation design but were collected routinely for other ESEA Chapter 1 programs, is not included here but has been submitted to the Department of Federal and State Programs.

Major Findings

Pupils Served

During the 1989-90 school year, a total of 514 pupils were served by the CLEAR-Reading Recovery program. Of these 514 pupils, 191 (37.2%) received individual one-on-one service only, 173 (33.7%) received both individual one-on-one service and group service, and 150 (29.2%) received group service only. To be included in the treatment group and/or the evaluation sample, a pupil must have received individual, one-on-one service at some time during the school year. Of the 514 pupils served, 364 (70.8%) received individual, one-on-one service during 1989-90. The analysis of service patterns, Question 1, page 9, is based on these 364 pupils.

The treatment group for 1989-90 pupils served was limited to the 144 pupils who were discontinued and the 74 additional pupils who had a minimum of 60 lessons (a total of 218 pupils). The use of the 60 lesson distinction was based upon the premise in Marie Clay's research in New Zealand (1979) which determined that an average of 60 lessons was needed for pupils to be discontinued and to continue to work successfully in the normal classroom setting. Thus, the 146 other pupils served were excluded from the treatment group. The evaluation sample was restricted to those pupils who were in the treatment group, had both pretest and posttest administrations of the standardized achievement test (MAT6), and had a valid MAT6 Total Reading score for both pretest and posttest. Of the 218 pupils in the treatment group, 34 pupils were excluded from the evaluation sample because of incomplete test data. The evaluation sample was comprised of the remaining 184 pupils, which was 84.4% of the treatment group and 50.5% of the 364 pupils served. It should be noted that of the 150 pupils who received only group service and who could not be included in either the treatment group or evaluation sample, 40 (26.7%) met the Reading Recovery program criteria to be successfully discontinued.

Desired Outcome 1:

> At least 50 percent of the program pupils (pupils discontinued or having had 60 or more lessons) will gain at least 3.0 normal curve equivalent (NCE) points in Total Reading. Gain will be measured by a nationally standardized achievement test.

A total of 184 pupils were discontinued from the CLEAR-RR program or had received 60 or more lessons during the school year and had both pre- and posttest scores in Total Reading on the MAT6. These 184 pupils comprised the evaluation sample for the CLEAR-RR program for 1989-90. Of these 184 pupils, 126 (68.5%) had an NCE gain of at least 3.0 points in Total Reading, thus allowing Desired Outcome 1 to be met.

Desired Outcome 2:

> At least 75 percent of program pupils will not be retained.

Desired Outcome 2 was based on the number of pupils who were discontinued from the CLEAR-RR program or had received 60 or more lessons during the school year. A total of 218 pupils met one of these criterion. These 218 pupils formed the treatment group for 1989-90. Of these 218 pupils, retention data was available for 213, of which 193 (90.6%) were not retained. Thus, Desired Outcome 2 was met.

Desired Outcome 3:

At least 75 percent of parents of program pupils will become involved in the program through observations, conferences or home participation.

Desired Outcome 3 was based on the 218 pupils in the 1989-90 treatment group. Of these 218 pupils, 208 (95.4%) had the appropriate parent involvement in the program that allowed Desired Outcome 3 to be met.

Question 1 What were the service patterns of pupils in the CLEAR-Reading Recovery program?

Analysis 1.1 Number of pupils who were served.

Analysis 1.2 Number of pupils who were discontinued.

Analysis 1.3 Demographic characteristics of pupils who were served.

Analysis 1.4 Demographic characteristics of pupils who were discontinued.

The service patterns of the CLEAR-RR program are reported below in the following order: the number of pupils who were served and their demographic characteristics; the number of lessons received; and the number of pupils who were discontinued and their demographic characteristics.

The 1989-90 CLEAR-Reading Recovery program served a total of 514 first-grade pupils in 31 schools (see Table 1, page 2). During 1988-89, 283 pupils were served in 26 schools, an increase of approximately 80% (231 pupils) for school year 1989-90. Part of this increase in pupils served resulted from an increase in program teachers from 23.8 FTE to 29.0 FTE, a 21.8% increase in teaching staff. Also, the introduction of group service for one period a day in each of the 31 schools helped to increase the number of pupils served. Of the 514 pupils served, 364 (70.8%) received individual, one-on-one service (see Pupils Served, p.8) at some time during the school year. The following analysis of pupil service patterns is based on these 364 pupils. Pupils in individual, one-on-one service received 30-minute lessons daily, for an average of 2.5 hours of instruction per week.

The demographic characteristics (gender, race, and socio-economic status) of the 364 pupils who were served in the program were analyzed from the school district's Student Master File (SMF), Pupil Information File (PIF), and November 1989 official enrollment tape. The data were based on information reported by parents and/or school personnel. Of the pupils served, 55.8% (203) were boys and 44.2% (161) were girls (see Table 2). As for the distribution by race, 43.4% (158) of the pupils served were identified as Non-Minority, 55.2% (201) were Black, and the remaining 1.4% (5) were Other Minority (see Table 3). The Other Minority category included Spanish Surname, Asian American, and American Indian. Socio-economic status was indicated by pupil eligibility for subsidized (free or reduced-price) lunch as of November 1989. Of the 364 pupils served, 77.7% (283) were on free lunch, 8.5% (31) were on reduced-price lunch, 12.6% (46) were not on subsidized lunch, and the status of the remaining 1.1% (4 pupils) was unknown (see Table 4).

For evaluation purposes, the pupils served in the program were divided into

Table 2

Percent and Number of CLEAR-RR Pupils Served* by Gender 1989-90

Gender	%	(N)
Boys	55.8	(203)
Girls	44.2	(161)
Total	100.0	(364)

Table 3

Percent and Number of CLEAR-RR Pupils Served* by Race 1989-90

Race	%	(N)
Non-Minority	43.4	(158)
Black	55.2	(201)
Other Minority[a]	1.4	(5)
Total	100.0	(364)

[a]Includes Spanish Surname, Asian American, and American Indian

Table 4

Percent and Number of CLEAR-RR Pupils Served* by Subsidized Lunch Status 1989-90

Subsidized Lunch Status	%	(N)
Free	77.7	(283)
Reduced	8.5	(31)
Paying	12.6	(46)
Unknown	1.1	(4)
Total	99.9	(364)

Note. Based on November 1989 data

*CLEAR-RR Pupils Served includes only those pupils who received individual service during school year 1989-90.

three categories: discontinued pupils (those who had successfully completed the program); not discontinued pupils who had received 60 or more lessons, and other pupils served (those who were not discontinued and who received fewer than 60 lessons). Of the 364 pupils served during 1989-90, 39.6% (144) were discontinued, 20.3% (74) were not discontinued but received 60 or more lessons, and 40.1% (146) were other pupils served (see Table 5). For 1988-89, program data revealed that 35.0% of pupils were discontinued, 30.0% were not discontinued but received 60 or more lessons, and 35.0% were other pupils served. The data show that there was an increase in the percent of pupils discontinued and a decrease in the percent of pupils who received 60 or more lessons but were not discontinued. This may have resulted, in part, from providing group instruction for some pupils before providing them with individual, one-on-one service.

The number of lessons completed by pupils ranged from none to 134, with an average of 53.0 lessons, compared to an average of 60.2 lessons in 1988-89. Enrollment data indicate that for 1989-90, average pupil enrollment was 101.6 days, compared to average pupil enrollment of 90.4 days in 1988-89. The data indicate that pupils were enrolled in the program longer, but received fewer lessons in 1989-90. This, in part, is a result of providing some pupils with group instruction before providing them with individual, one-on-one service, which counted as days of enrollment in the program but not as days of lessons. The number of lessons completed is less than the number of days of enrollment for a number of other reasons. First, actual days of attendance is less than days enrolled. Average pupil attendance in 1989-90 was 84.1 days, compared to average pupil enrollment of 101.6 days. Second, pupils did not always receive lessons on parent-conference days and teacher-inservice days, although these days were considered indirect service and did count toward enrollment. Third, pupils did not receive lessons during their first 10 days of attendance while they were "Roaming in the Known." The average number of pupils served by each of the 66 teachers (29.0 FTE) was 12.6 pupils and the average number of pupils discontinued by each teacher was 5.0 pupils, compared to 4.2 pupils per teacher discontinued in 1988-89.

A continuing concern of program planners is how long to serve pupils who appear to make little or no progress after a large number of lessons. Approximately 60 lessons are considered necessary for most pupils to successfully complete the program. However, in 1989-90, the number of lessons needed by pupils to be discontinued varied greatly. For example, one pupil was discontinued after only three lessons but six other pupils were not discontinued after 120 lessons. The number of lessons completed by pupils who were discontinued ranged from 3 to 134, with an average of 62.6 lessons. The number of lessons completed by pupils who were not discontinued (the two other pupil categories combined) ranged from 0 to 128 lessons, with an average of 46.7 lessons. Of the 153 pupils who received 60 or more lessons, 51.6% (79) were discontinued and 48.4% (74) were not discontinued. A distribution of the number of lessons completed by pupils in the three pupil categories is shown in Table 5.

An examination of the 144 pupils who were discontinued from the program revealed that 48.6% (70) were boys and 51.4% (74) were girls (see Table 6) even though more boys than girls (203 to 161) received program service. Of the 203 boys served, 34.5% were discontinued compared to 46.0% of the 161 girls served. The analysis by race indicated that 52.1% (75) of the discontinued pupils were Black, 45.8% (66) were Non-Minority, and 2.1% (3) were Other Minority (see Table 7). These figures are representative of all pupils served. Of the 144 discontinued pupils, 78.5% (113) were on free lunch, 10.4% (15) were on reduced lunch, and 11.1% (16) were not on subsidized lunch. When

Table 5

Percent and Number of CLEAR-RR Pupils Served
by Pupil Category and Number of Lessons
1989-90

Number of Lessons	Pupil Category: Discontinued Pupils[a]		Not Discontinued Pupils[b]		Other Pupils Served[c]		Total Pupils Served	
	%	(N)	%	(N)	%	(N)	%	(N)
Fewer than 60								
0-9	5.6	(8)			26.7	(39)	12.9	(47)
10-19	6.9	(10)			14.4	(21)	8.5	(31)
20-29	6.3	(9)			22.6	(33)	11.5	(42)
30-39	6.9	(10)			14.4	(21)	8.5	(31)
40-49	9.0	(13)			9.6	(14)	7.4	(27)
50-59	10.4	(15)			12.3	(18)	9.1	(33)
Subtotal	45.1	(65)			100.0	(146)	58.0	(211)
60 or More								
60-69	11.1	(16)	17.6	(13)			8.0	(29)
70-79	13.9	(20)	16.2	(12)			8.8	(32)
80-89	6.9	(10)	16.2	(12)			6.0	(22)
90-99	8.3	(12)	13.5	(10)			6.0	(22)
100-109	8.3	(12)	16.2	(12)			6.6	(24)
110-119	3.5	(5)	12.2	(9)			3.8	(14)
120-129	2.1	(3)	8.1	(6)			2.5	(9)
130-139	0.7	(1)	0.0	(0)			0.3	(1)
Subtotal	54.9	(79)	100.0	(74)			42.0	(153)
Total	100.0	(144)	100.0	(74)	100.0	(146)	100.0	(364)

[a] Discontinued pupils could have any number of lessons
[b] Not discontinued pupils with 60 or more lessons
[c] Other pupils served with fewer than 60 lessons

Table 6

Percent and Number of CLEAR-RR Pupils Discontinued by Gender 1989-90

Gender	%	(N)
Boys	48.6	(70)
Girls	51.4	(74)
Total	100.0	(144)

Table 7

Percent and Number of CLEAR-RR Pupils Discontinued by Race 1989-90

Race	%	(N)
Non-Minority	45.8	(66)
Black	52.1	(75)
Other Minority[a]	2.1	(3)
Total	100.0	(144)

[a]Includes Spanish Surname, Asian American, and American Indian

Table 8

Percent and Number of CLEAR-RR Pupils Discontinued by Subsidized Lunch Status 1989-90

Subsidized Lunch Status	%	(N)
Free	78.5	(113)
Reduced	10.4	(15)
Paying	11.1	(16)
Unknown	0.0	(0)
Total	100.0	(144)

Note. Based on November 1989 data

comparing these figures to all pupils served, the numbers are representative of all pupils served.

Question 2 What were the performance levels of CLEAR-Reading Recovery pupils on a standardized test of reading?

Analysis 2.1 Number and percent of pupils reaching the 50%ile in Total Reading on the MAT6.

Analysis 2.2 Number and percent of pupils reaching the 37%ile in Total Reading on the MAT6.

Analysis 2.3 Number and percent of pupils reaching the average NCE for the district in Total Reading on the MAT6. (Analysis will be based on available data. Availability of data will come from schools involved in other programs requiring total school testing.)

Analysis 2.4 Number and percent of pupils who have shown a gain of seven NCE points between pretest and posttest in Total Reading on the MAT6.

Analysis 2.5 Analysis of central tendency and distribution of NCE scores on the pretest and posttest of Total Reading on the MAT6.

MAT6 posttest scores from April 1990 were analyzed for the 184 pupils in the evaluation sample and for certain subgroups within the evaluation sample (see Tables 9 and 11). Analyses of pre- and posttest scores were also conducted to determine the Normal Curve Equivalent (NCE) change that took place from pretest to posttest for pupils in the evaluation sample.

Table 9 presents data showing the number and percent of pupils reaching the 37%ile and 50%ile in Total Reading on the MAT6 posttest. Of the 184 pupils in the evaluation sample, 22.8% (42) reached the 37%ile on the posttest, with 15.2% (28) reaching the 50%ile on the posttest. The remaining 142 pupils (77.2%) in the evaluation sample had posttest scores below the 37%ile, indicating that they were still eligible for Chapter 1 program service. Those pupils who were successfully discontinued from the program reached the 37%ile and 50%ile on the posttest at much higher percentages than did those pupils who were not discontinued and received 60 or more lessons. Of the 127 discontinued pupils, 30.7% (39) reached the 37%ile and 22.0% (28) reached the 50%ile, but only 5.3% (3) of the 57 not discontinued pupils who received 60 or more lessons reached the 37%ile. None of the 57 pupils reached the 50%ile on the posttest.

When comparing the percents of pupils reaching the 37%ile and 50%ile in Total Reading on the posttest over the four year period from 1987 to 1990, the data reported in Table 10 show that from the 1988-89 to 1989-90 school year there was a slight increase in the percent of pupils reaching the 37%ile (22.1% to 22.8%) and a greater increase in the percent of pupils reaching the 50%ile (11.5% to 15.2%). The data also indicate that when the posttest was changed from the CTBS, 1981, to the MAT6, 1985, beginning with the 1988-89 school year, posttest scores dropped. The decrease, in part, resulted from the MAT6, 1985, being considered to be a more difficult test than the CTBS, 1981. Research indicates that tests normed in 1985 would be more difficult than those normed in 1981 because reading scores nationwide rose over the period from 1981-1985. Another possible explanation for the dramatic decrease in 1988-89 may be attributed to the inappropriateness of the pretest level of the MAT6, 1985, administered at that time. The MAT6 results may not have reflected true pupil performance during 1988-89. The pretest level was found to be too difficult for low-achieving pupils, while the posttest level was found to be

Table 9
Percent and Number of Evaluation Sample Pupils
Reaching 37%ile and 50%ile on MAT6 Posttest for
Total Reading by Pupil Category
1989-90

Pupil Category	N	Total Reading 37%ile %	Total Reading 37%ile (N)	Total Reading 50%ile %	Total Reading 50%ile (N)
Discontinued	127	30.7	39	22.0	28
Not Discontinued and 60 or More Lessons	57	5.3	3	0.0	0
Total Sample	184	22.8	42	15.2	28

Table 10
Percent and Number of Evaluation Sample Pupils
Reaching 37%ile and 50%ile on
Total Reading Posttest by Year
1987-90

School Year	N	Posttest	Total Reading 37%ile %	Total Reading 37%ile (N)	Total Reading 50%ile %	Total Reading 50%ile (N)
1986-87	189	CTBS,1981	38.6	73	18.5	35
1987-88	253	CTBS,1981	33.2	84	15.0	38
1988-89	104	MAT6,1985	22.1	23	11.5	12
1989-90	184	MAT6,1985	22.8	42	15.2	28

too easy for the average and above-average pupils. More appropriate pretest and posttest levels were administered in 1989-90.

The data derived from Analysis 2.3, relating to the number and percent of pupils reaching the average NCE for the district in Total Reading on the MAT6, show that of the 184 pupils in the evaluation sample, 31 (16.8%) reached the average NCE (47.5 NCEs) for the district in Total Reading. Of the 127 pupils in the evaluation sample who were successfully discontinued, 31 (24.4%) reached the district average, while none of the evaluation sample pupils who were not discontinued and received 60 or more lessons (57) reached the district average NCE for the posttest.

Table 11 displays data concerning the number and percent of evaluation sample pupils achieving an NCE gain of 7.0 or more from pretest to posttest on the MAT6. For all 184 pupils in the evaluation sample, the average pretest-posttest gain was 12.2 NCEs, with 111 (60.3%) of the evaluation sample pupils gaining 7.0 or more NCEs. When looking at the 127 discontinued pupils in the sample, the average pretest-posttest gain was 14.4 NCEs, with 86 (67.7%) pupils having an NCE gain of 7.0 points or more. Those sample pupils who were not discontinued and had 60 or more lessons had a much lower pretest-posttest gain than did the discontinued pupils. The 57 not discontinued pupils had an average gain of 7.2 NCEs, with 25 (43.9%) having an NCE gain equal to or greater than 7.0.

For Analysis 2.5 the Kolmogorov-Smirnov Goodness of Fit Test was run to determine whether or not the distributions of the Total Reading pretest, posttest, and pretest-posttest difference scores were relatively normal. Results indicated that two of the three distributions of 184 scores did not differ significantly from a normal distribution (for the posttest K-S $z = 0.87$, $p = 0.44$; for the pretest-posttest distribution, K-S $z = 0.96$, $p = 0.31$). However, there was a significant difference at pretesting (K-S $z = 1.51$, $p = 0.02$), suggesting that scores were not normally distributed at pretest. Further examination of the data revealed a positively skewed distribution with about 30% scoring below the guess level, indicating that this test was too difficult for about 30% of the pupils. The means and standard deviations for these distributions are shown in Table 11.

Table 11
Percent and Number of Evaluation Sample Pupils
Achieving Normal Curve Equivalent (NCE) Gain $\geq$ 7.0
on MAT6 by Pupil Category
1989-90

Pupil Category	N	Pretest Mean NCE	Pretest SD	Posttest Mean NCE	Posttest SD	Pretest-Posttest Change Mean NCE	Pretest-Posttest Change SD	Change $\geq$ 7 NCEs %	Change $\geq$ 7 NCEs (N)
Discontinued	127	22.6	14.6	37.0	15.8	14.4	20.2	67.7	86
Not Discontinued and 60 or More Lessons	57	10.7	11.2	17.9	12.6	7.2	13.4	43.9	25
Total Sample	184	18.9	14.7	31.1	17.3	12.2	18.6	60.3	111

Question 3 What were the teacher ratings in 1989-90 of pupils who were served by CLEAR-Reading Recovery during the 1988-89 school year? What were the attitudes of these teachers regarding the CLEAR-Reading Recovery program?

Analysis 3.1 Frequency counts, percents, and content analysis of the survey of teachers who had pupils in 1989-90 who were served by CLEAR-RR in the 1988-89 treatment group (Classroom Teacher Survey).

In May 1990 surveys were mailed to classroom teachers who had pupils in 1989-90 who were in the CLEAR-RR treatment group in the 1988-89 school year. The purposes of the Classroom Teacher Survey (see pp. 55-58, Appendix D) were to obtain teacher ratings and related information with regard to the reading performance of pupils during 1989-90 who received the CLEAR-RR program treatment during the previous school year, to determine teacher agreement with selected statements about the program, and to collect classroom teacher comments about the CLEAR-RR program in general.

Each survey sent to classroom teachers contained the name(s) of one or more pupils in their homeroom who were in the 1988-89 CLEAR-RR treatment group and who were still enrolled in the Columbus Public Schools at the time of the mailing. Of the 184 pupils in the 1988-89 treatment group, 166 were still enrolled in May 1990. These 166 pupils were distributed in 107 teachers' homerooms throughout the district. Surveys were sent to these 107 teachers, with a return rate of 65.4% (70 surveys returned out of 107 mailed). The 70 returned surveys contained the names and student numbers of 110 (66.3%) of the 166 pupils for whom ratings were sought. Of the 110 pupils, 23 pupils were excluded from the analysis due to one or more of the following reasons: the pupil was no longer in the teacher's homeroom; the pupil was in special education; the teacher felt the pupil had not been in the homeroom long enough for him or her to provide ratings; and the pupil's grade level was missing from the survey. The final analysis was conducted for the remaining 87 pupils. This number was 52.4% of the 166 pupils remaining in the district from the 1988-89 treatment group.

Classroom Teacher Survey responses are summarized in Tables 12 to 17. Of the 87 pupils in the 1988-89 CLEAR-RR treatment group who were included in the final analysis, 20.7% (18) were retained in grade 1 and 79.3% (69) were in grade 2 in 1989-90. Approximately three-fifths of the group, 57.5% (50) were discontinued in 1988-89 and two-fifths, 42.5% (37) were not discontinued. Of the 50 discontinued pupils, 96.0% (48) were in grade 2. Of the 37 not discontinued pupils, 56.8% (21) were in grade 2 and 43.2% (16) were in grade 1.

Items 22, 25, and 26 of the Classroom Teacher Survey provided demographic data about the 70 teachers who returned surveys. Of the 70 respondents, 80.0% (56) responded that they were presently teaching in a school where CLEAR-RR served pupils, 31.4% (22) were teaching first grade, 52.9% (37) were teaching second grade, and 12.9% (9) responded that they taught split grade classes or other types of classes (two people did not respond to Item 25). Of the 70 respondents, 91.4% (64) taught in regular classrooms and 8.6% (6) taught in Special Education classrooms (5, Developmentally Handicapped; 1, Specific Learning Disabilities).

Table 12 includes a distribution of pupil ratings for Items 3-13, in which classroom teachers rated each pupil from very successful (5) to very unsuccessful (1) for each item. Item mean scores are also included. A mean score of 3.50 or greater indicates successful performance and a mean score at or below 2.50 indicates unsuccessful performance. The category in-between

Table 12

- Frequency and Mean Classroom Teacher Survey Ratings for Items 3-13 for 1989-90 Pupils Who Were in the 1988-89 CLEAR-RR Treatment Group by 1989-90 Grade Level

Grade 1 Item	Mean	Response Category: Very Successful 5 %	(N)	Successful 4 %	(N)	In-Between 3 %	(N)	Unsuccessful 2 %	(N)	Very Unsuccessful 1 %	(N)	Total (N)
3. Reads and understands basal reading stories	3.11	5.6	(1)	38.9	(7)	27.8	(5)	16.7	(3)	11.1	(2)	(18)
4. Reads and understands supplemental reading materials used for instruction	2.94	0.0	(0)	29.4	(5)	41.2	(7)	23.5	(4)	5.9	(1)	(17)
5. Reads library books	3.00	0.0	(0)	33.3	(6)	38.9	(7)	22.2	(4)	5.6	(1)	(18)
6. Understands assignments	3.22	0.0	(0)	50.0	(9)	27.8	(5)	16.7	(3)	5.6	(1)	(18)
7. Works independently	2.78	0.0	(0)	33.3	(6)	27.8	(5)	22.2	(4)	16.7	(3)	(18)
8. Finishes seatwork	2.72	5.6	(1)	16.7	(3)	38.9	(7)	22.2	(4)	16.7	(3)	(18)
9. Practices self control	2.67	11.1	(2)	22.2	(4)	22.2	(4)	11.1	(2)	33.3	(6)	(18)
10. Writes own stories	3.00	5.6	(1)	33.3	(6)	27.8	(5)	22.2	(4)	11.1	(2)	(18)
11. Makes progress in reading group	2.83	0.0	(0)	33.3	(6)	33.3	(6)	16.7	(3)	16.7	(3)	(18)
12. Usually knows how to figure out new words	2.78	0.0	(0)	33.3	(6)	33.3	(6)	11.1	(2)	22.2	(4)	(18)
13. Attends class regularly	3.78	33.3	(6)	33.3	(6)	16.7	(3)	11.1	(2)	5.6	(1)	(18)

(table continues)

Table 12 (continued)

Frequency and Mean Classroom Teacher Survey Ratings for Items 3-13
for 1989-90 Pupils Who Were in the 1988-89 CLEAR-RR Treatment Group
by 1989-90 Grade Level

Grade 2 Item	Mean	Response Category: Very Successful 5 %	(N)	Successful 4 %	(N)	In-Between 3 %	(N)	Unsuccessful 2 %	(N)	Very Unsuccessful 1 %	(N)	Total (N)
3. Reads and understands basal reading stories	3.41	11.6	(8)	42.0	(29)	27.5	(19)	13.0	(9)	5.8	(4)	(69)
4. Reads and understands supplemental reading materials used for instruction	3.04	4.3	(3)	33.3	(23)	31.9	(22)	23.2	(16)	7.2	(5)	(69)
5. Reads library books	3.13	7.2	(5)	30.4	(21)	39.1	(27)	14.5	(10)	8.7	(6)	(69)
6. Understands assignments	3.07	7.2	(5)	31.9	(22)	31.9	(22)	18.8	(13)	10.1	(7)	(69)
7. Works independently	2.90	8.7	(6)	29.0	(20)	21.7	(15)	24.6	(17)	15.9	(11)	(69)
8. Finishes seatwork	3.03	13.0	(9)	27.5	(19)	24.6	(17)	18.8	(13)	15.9	(11)	(69)
9. Practices self control	3.09	8.7	(6)	37.7	(26)	21.7	(15)	17.4	(12)	14.5	(10)	(69)
10. Writes own stories	2.83	3.0	(2)	25.8	(17)	36.4	(24)	21.2	(14)	13.6	(9)	(66)
11. Makes progress in reading group	3.35	5.8	(4)	47.8	(33)	27.5	(19)	13.0	(9)	5.8	(4)	(69)
12. Usually knows how to figure out new words	3.19	8.8	(6)	30.9	(21)	38.2	(26)	14.7	(10)	7.4	(5)	(68)
13. Attends class regularly	4.25	47.8	(33)	37.7	(26)	8.7	(6)	2.9	(2)	2.9	(2)	(69)

ranged between 3.50 and 2.50. In addition to item means, the percentages of positive ratings (very successful and successful) and negative ratings (unsuccessful and very unsuccessful) were considered. Table 12 reports ratings by grade level, separating pupils who were retained in grade 1 from pupils who progressed to grade 2, taking into account the different teacher expectations for pupil performance for these two groups.

Table 13 includes a distribution of pupil ratings for Items 3-13 by 1988-89 pupil category. That is, ratings for pupils who were discontinued during 1988-89 are reported separately from ratings for pupils who were not discontinued but received 60 or more lessons. Items in Table 13, like Table 12, include a rating for each item from very successful (5) to very unsuccessful (1). Mean scores are also included and treated the same as with Table 12.

Four items about reading were of particular interest: reads and understands basal reading stories (Item 3); reads and understands supplemental reading materials used for instruction (Item 4); makes progress in reading group (Item 11); and usually knows how to figure out new words (Item 12).

Results for Items 3-13 in Grades 1 and 2 (see Table 12). Overall, on Items 3-13, grade 1 pupils received 1 successful (positive) mean rating, 10 in-between ratings, and no unsuccessful (negative) ratings. Grade 2 pupils also received 1 successful mean rating, 10 in-between ratings, and no unsuccessful ratings. Items 3, 4, 11, and 12 of the survey dealt directly with reading instruction. Ratings for both grades 1 and 2 for these four items were all in the in-between range, but grade 2 pupils were consistently rated higher than grade 1 pupils. For grade 1, Item 3 about reading and understanding basal reading stories had the highest mean rating (3.11) of the four reading items, with 44.4% of the ratings being successful (4 or 5) and 27.8% being unsuccessful (2 or 1). Usually knowing how to figure out new words (Item 12) had the lowest mean rating (2.78) of the four reading items, with 33.3% rating it successful and 33.3% unsuccessful. For grade 2, Item 3 also had the highest mean rating (3.41), with a 53.6% successful rating and 18.8% unsuccessful. Item 4 was the lowest rated item of the four for grade 2, having a mean rating of 3.04, with a 37.7% successful rating and 30.4% unsuccessful. For Items 3-13, pupils in both grade 1 and 2 received their highest mean rating for class attendance (Item 13). The lowest rated items varied. For grade 1, the lowest rated items were Item 9 (2.67) and Item 8 (2.72). Both items related specifically to working independently. For grade 2, the lowest rated items were Item 10 (2.83) and Item 7 (2.90), each relating more to non-reading, student-directed activities than to the reading process or instruction.

Results for Items 3-13 by Pupil Category (see Table 13). Overall, on Items 3-13, discontinued pupils received 3 successful (positive) mean ratings, 8 in-between ratings, and no unsuccessful (negative) ratings. Not discontinued pupils received 1 successful rating, 9 in-between ratings, and 1 unsuccessful rating. For all 11 items, discontinued pupils received higher ratings when compared to not discontinued pupils. Of the four reading-related items (3, 4, 11, and 12), the item about reading and understanding basal reading stories (Item 3) rated the highest for both discontinued and not discontinued pupils. For discontinued pupils the mean rating was 3.74 (68.0% successful and 8.0% unsuccessful) and for not discontinued pupils the mean rating was 2.81 (29.7% successful and 37.8% unsuccessful). The highest rated of Items 3-13 for both discontinued and not discontinued pupils was Item 13 relating to regular class attendance. The lowest rated items (range 3.06 - 3.20) for discontinued pupils dealt with student-directed activities (Items 7, 8, and 10), while the lowest rated item for not discontinued pupils was Item 7 (2.49), relating directly to working independently.

Table 13

Frequency and Mean Classroom Teacher Survey Ratings for Items 3-13 for 1989-90 Pupils Who Were in the 1988-89 CLEAR-RR Treatment Group by Pupil Category

Discontinued Pupils Item	Mean	Response Category: Very Successful 5 %	(N)	Successful 4 %	(N)	In-Between 3 %	(N)	Unsuccessful 2 %	(N)	Very Unsuccessful 1 %	(N)	Total (N)
3. Reads and understands basal reading stories	3.74	14.0	(7)	54.0	(27)	24.0	(12)	8.0	(4)	0.0	(0)	(50)
4. Reads and understands supplemental reading materials used for instruction	3.34	6.0	(3)	40.0	(20)	38.0	(19)	14.0	(7)	2.0	(1)	(50)
5. Reads library books	3.36	10.0	(5)	38.0	(19)	34.0	(17)	14.0	(7)	4.0	(2)	(50)
6. Understands assignments	3.36	10.0	(5)	40.0	(20)	30.0	(15)	16.0	(8)	4.0	(2)	(50)
7. Works independently	3.16	12.0	(6)	38.0	(19)	16.0	(8)	22.0	(11)	12.0	(6)	(50)
8. Finishes seatwork	3.20	18.0	(9)	30.0	(15)	22.0	(11)	14.0	(7)	16.0	(8)	(50)
9. Practices self control	3.30	12.0	(6)	42.0	(21)	20.0	(10)	16.0	(8)	10.0	(5)	(50)
10. Writes own stories	3.06	4.3	(2)	36.2	(17)	34.0	(16)	12.8	(6)	12.8	(6)	(47)
11. Makes progress in reading group	3.66	8.0	(4)	60.0	(30)	24.0	(12)	6.0	(3)	2.0	(1)	(50)
12. Usually knows how to figure out new words	3.42	10.2	(5)	40.8	(20)	36.7	(18)	6.1	(3)	6.1	(3)	(49)
13. Attends class regularly	4.38	54.0	(27)	34.0	(17)	8.0	(4)	4.0	(2)	0.0	(0)	(50)

(table continues)

Table 13 (continued)

Frequency and Mean Classroom Teacher Survey Ratings for Items 3-13 for 1989-90 Pupils Who Were in the 1988-89 CLEAR-RR Treatment Group by Pupil Category

Not Discontinued Pupils Item	Mean	Response Category: Very Successful 5 %	(N)	Successful 4 %	(N)	In-Between 3 %	(N)	Unsuccessful 2 %	(N)	Very Unsuccessful 1 %	(N)	Total (N)
3. Reads and understands basal reading stories	2.81	5.4	(2)	24.3	(9)	32.4	(12)	21.6	(8)	16.2	(6)	(37)
4. Reads and understands supplemental reading materials used for instruction	2.58	2.7	(1)	21.6	(8)	27.0	(10)	35.1	(13)	13.5	(5)	(37)
5. Reads library books	2.76	0.0	(0)	21.6	(8)	45.9	(17)	18.9	(7)	13.5	(5)	(37)
6. Understands assignments	2.76	0.0	(0)	29.7	(11)	32.4	(12)	21.6	(8)	16.2	(6)	(37)
7. Works independently	2.49	0.0	(0)	18.9	(7)	32.4	(12)	27.0	(10)	21.6	(8)	(37)
8. Finishes seatwork	2.65	2.7	(1)	18.9	(7)	35.1	(13)	27.0	(10)	16.2	(6)	(37)
9. Practices self control	2.60	5.4	(2)	24.3	(9)	24.3	(9)	16.2	(6)	29.7	(11)	(37)
10. Writes own stories	2.62	2.7	(1)	16.2	(6)	35.1	(13)	32.4	(12)	13.5	(5)	(37)
11. Makes progress in reading group	2.68	0.0	(0)	24.3	(9)	35.1	(13)	24.3	(9)	16.2	(6)	(37)
12. Usually knows how to figure out new words	2.68	2.7	(1)	18.9	(7)	37.8	(14)	24.3	(9)	16.2	(6)	(37)
13. Attends class regularly	3.84	32.4	(12)	40.5	(15)	13.5	(5)	5.4	(2)	8.2	(3)	(37)

Tables 14 and 15 show distributions of pupil ratings for the three items about the achievement of passing scores on basal tests (Items 14-16) and also ratings on retention of pupils (Item 19). The ratings are reported by grade level in Table 14 and by pupil category in Table 15. By grade level, grade 2 pupils were rated higher than grade 1 pupils in achieving passing comprehension test scores (68.8% to 58.8%), but lower in achieving passing vocabulary test scores (78.8% to 83.3%) and in achieving passing decoding test scores (52.3% to 58.8%). By pupil category, discontinued pupils were rated higher than not discontinued pupils on achieving passing comprehension test scores (88.9% to 38.9%). Discontinued pupils also rated higher for vocabulary (91.5% to 64.9%) and for decoding (63.0% to 41.7%). For Item 19, 19.7% (13) of 66 grade 2 pupils were to be retained and none of grade 1 pupils would be retained because district practice limits retention in grade 1 to one year. (Pupils in grade 1 had been retained at the end of the 1988-89 school year.) By pupil category, 6.1% (3) of the 49 discontinued pupils in the treatment group were to be retained, compared with 28.6% (10) of the 35 not discontinued pupils.

Item 17 of the survey dealt with the reading group status of the pupils who were rated by teachers. Teachers rated pupils as being in either a high, middle, or low reading group. For grade 1, 16.7% (3 pupils) were in the high group, 50.0% (9 pupils) were in the middle group, and 33.3% (6) were in the low group. In grade 2, percentages were lower for high and middle groups but higher for the low reading group: 11.8% (8 pupils for high), 35.3% (24 pupils) for middle, and 52.9% (36 pupils) for low. By pupil category, there was a major difference in placement in reading groups when comparing discontinued pupils with not discontinued pupils. For discontinued pupils, placements included 18.4% (9 pupils) high, 46.9% (23 pupils) middle, and 34.7% (17 pupils) low. Not discontinued pupil placement included 5.4% (2) high, 27.0% (10) middle, and 67.6% (25) low.

Table 16 shows a distribution of letter grades earned in reading in the last grading period (Item 18). No pupils retained in grade 1 earned an A, nor did any pupils in grade 2 earn an A. The percentages of pupils who earned an F were 11.1% for grade 1 and 12.1% for grade 2. In grade 1, 61.1% of pupils (11) received a grade of C or above and in grade 2, 47.0% (31) received a grade of C or above. By pupil category, 67.3% (33) of discontinued pupils received a grade of C or above, compared to 25.7% (9) for not discontinued pupils.

For Item 20, classroom teachers reported that none of the pupils who were rated was a "non-English" speaking student (ESL). Item 21 dealt with pupil qualification for Special Education programs. By grade level, 33.3% (6) of grade 1 pupils, compared to 4.4% (3) of grade 2 pupils, qualified for a Special Education program. By pupil category, 4.1% (2) of the discontinued pupils qualified for a Special Education program, and 18.9% (7) for not discontinued pupils.

Table 17 shows a distribution of responses to Items 23 and 24 of the Classroom Teacher Survey. Only those teachers who responded positively to Item 22 (whether CLEAR-Reading Recovery served their school during 1989-90) were to respond to Items 23 and 24. Item 23 questioned the value of the CLEAR-Reading Recovery program for pupils. On a 5-point scale [Strongly Agree (5) to Strongly Disagree (1)], Item 23 received a 4.32 mean score, with 79.7% (47 respondents) agreeing that the program was of value to pupils (those responding Strongly Agree and Agree). Item 24 questioned the funding for the CLEAR-Reading Recovery program. The mean score for the item was 4.29 (on the 5-point scale). Forty-seven respondents (83.9%) supported (Strongly Agree and Agree) the funding of the CLEAR-Reading Recovery program, compared to other ways that money could be spent for compensatory reading programs in their schools.

Table 14

Classroom Teacher Survey Ratings for Items 14, 15, 16, and 19
for 1988-89 CLEAR-RR Treatment Group Pupils
by 1989-90 Grade Level

Item	Grade									
	Grade 1					Grade 2				
	Yes		No		Total	Yes		No		Total
	%	(N)	%	(N)	(N)	%	(N)	%	(N)	(N)
Achieves suggested passing score on basal tests in the area of:										
14. Comprehension	58.8	(10)	41.2	(7)	(17)	68.8	(44)	31.3	(20)	(64)
15. Vocabulary	83.3	(15)	16.7	(3)	(18)	78.8	(52)	21.2	(14)	(66)
16. Decoding	58.8	(10)	41.2	(7)	(17)	52.3	(34)	47.7	(31)	(65)
19. Will be retained at the end of this school year	0.0	(0)	100.0	(18)	(18)	19.7	(13)	80.3	(53)	(66)

Note. Responses of not sure were excluded from the analysis.

Table 15

Classroom Teacher Survey Ratings for Items 14, 15, 16, and 19
for 1988-89 CLEAR-RR Treatment Group Pupils
by Pupil Category

Item	Pupil Category									
	Discontinued					Not Discontinued				
	Yes		No		Total	Yes		No		Total
	%	(N)	%	(N)	(N)	%	(N)	%	(N)	(N)
Achieves suggested passing score on basal tests in the area of:										
14. Comprehension	88.9	(40)	11.1	(5)	(45)	38.9	(14)	61.1	(22)	(36)
15. Vocabulary	91.5	(43)	8.5	(4)	(47)	64.9	(24)	35.1	(13)	(37)
16. Decoding	63.0	(29)	37.0	(17)	(46)	41.7	(15)	58.3	(21)	(36)
19. Will be retained at the end of this school year	6.1	(3)	93.9	(46)	(49)	28.6	(10)	71.4	(25)	(35)

Note. Responses of not sure were excluded from the analysis.

Table 16

Classroom Teacher Survey Ratings for Item 18 for 1989-90 Pupils
Who Were in the 1988-89 CLEAR-RR Treatment Group
1989-90

Item	Grade Level											
	Grade 1						Grade 2					
	Discontinued		Not Discontinued		Total		Discontinued		Not Discontinued		Total	
	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)
18. Earned the following letter grade in reading in the last grading period (Circle NA=Not Applicable if pupil was not enrolled)												
A	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)
B	0.0	(0)	25.0	(4)	22.2	(4)	17.0	(8)	0.0	(0)	12.1	(8)
C	100.0	(2)	31.3	(5)	38.9	(7)	48.9	(23)	0.0	(0)	34.8	(23)
D	0.0	(0)	31.3	(5)	27.8	(5)	31.9	(15)	63.2	(12)	40.9	(27)
F	0.0	(0)	12.5	(2)	11.1	(2)	2.1	(1)	36.8	(7)	12.1	(8)
Total	100.0	(2)	100.1	(16)	100.0	(18)	99.9	(47)	100.0	(19)	99.9	(66)

Note. Responses of Not Applicable were excluded from the analysis.

Table 17

Frequency and Mean Classroom Teacher Survey Responses for Items 23-24
from Teachers in Schools Served by CLEAR-Reading Recovery
1989-90

Item	Mean	Response Category: Strongly Agree 5 %	(N)	Agree 4 %	(N)	Undecided 3 %	(N)	Disagree 2 %	(N)	Strongly Disagree 1 %	(N)	Total (N)
23. The CLEAR-Reading Recovery Program is of value to pupils in my school.	4.32	57.6	(34)	22.0	(13)	15.3	(9)	5.1	(3)	0.0	(0)	(59)
24. Compared to other ways that money could be spent for compensatory reading programs in my school, I support the funding of the CLEAR-Reading Recovery Program.	4.29	55.4	(31)	28.6	(16)	8.9	(5)	3.6	(2)	3.6	(2)	(56)

Note. Responses of Don't Know were excluded from the analysis.

Item 27 provided space for teachers to explain one or more of their answers or to comment on the CLEAR-Reading Recovery program in general. Forty of the 70 (57.1%) returned surveys contained written comments (see pp. 60-62, Appendix E). Comments were evaluated as being positive (supportive of the program), neutral (neither supportive nor non-supportive), or negative (non-supportive of the program). Of the 40 comments, 37.5% (15) were judged to be positive, 12.5% (5) negative, and 50.0% (20) neutral. Typical of the positive comments, one respondent wrote, "Reading Recovery teachers have made a greater contribution to the teaching of reading to at-risk students than any other program." Another stated, "The Reading Recovery program gives children the opportunity to become readers, especially the children that would not have been successful." But negatively, one respondent wrote, "I've seen very few if any second graders who have completed Reading Recovery be successful in second grade." Neutral comments varied, with responses including: (1) problems with pupils qualifying for special education; (2) specific comments about individual pupils; (3) the need to serve 2nd grade pupils; and (4) the possibility of having CLEAR programs eliminated.

Question 4 What were the costs of the CLEAR-Reading Recovery program compared to other compensatory programs?

Analysis 4.1 Costs per pupil of each program.

Table 18 provides data comparing the per pupil cost of compensatory programs serving grade 1 pupils in Columbus Public Schools. In addition to CLEAR-Reading Recovery, these programs include CLEAR-Whole Language (grade 1) and the Instructional Assistant program.

The program cost per FTE ranged from $44,883 per FTE for CLEAR-Whole Language (grade 1) to $37,728 per FTE for CLEAR-Reading Recovery to $13,600 per FTE for the Instructional Assistant program. Cost per FTE varied due to the salary schedule for Columbus Public School employees, which is dependent on position held, years experience, and educational degree attained.

During 1989-90, CLEAR-Reading Recovery served 514 pupils at a total cost of $1,094,118 compared to CLEAR-Whole Language (grade 1) which served 308 pupils at a cost of $354,576 and the Instructional Assistant program which served 1,732 pupils at a total cost of $1,156,000. The per pupil cost of the three grade 1 Chapter 1 programs were as follows: CLEAR-Reading Recovery, $2,129 per pupil; CLEAR-Whole Language (grade 1), $1,151 per pupil; and the Instructional Assistant program, $667 per pupil.

Of the three first grade programs, the Instructional Assistant program had the highest percentage of pupils served who met the criteria for the program evaluation sample - 51.5%, followed by CLEAR-Whole-Language (grade 1) - 40.9%, and CLEAR-Reading Recovery at 35.8%. The criteria, however, differed among the programs, e.g., CLEAR-Reading Recovery used the number of lessons while CLEAR-Whole Language (grade 1) and the Instructional Assistant program used attendance.

Table 18

Cost Analysis for First-Grade Public School Pupils in Chapter 1 CLEAR-Reading Recovery, Chapter 1 CLEAR-Whole Language, and the DPPF First-Grade Instructional Assistant Program 1989-90

Program	Number of FTE Teachers or Assistants	Program Cost[a]		Pupils in Program		Pupils per FTE		Cost per Pupil		Percentage of Pupils Served Who Met Evaluation Sample Criteria
		Total	Per FTE	Served	In Sample	Served	In Sample	Served	In Sample	
CLEAR-RR	29.0	$1,094,118	$37,728	514	184	17.7	6.3	$2,129	$5,946	35.8%
CLEAR-Whole Language (Grade 1)	7.9	$354,576	$44,883	308	126	39.0	15.9	$1,151	$2,814	40.9%
Instructional Assistant	85.0	$1,156,000	$13,600	1,732	892	20.4	10.5	$667	$1,296	51.5%

Note. Evaluation sample criteria differed among the programs.

[a] Cost figures include only teacher or aide costs (salaries plus fringe benefits).

Question 5
What were the long-term effects of the Clear-Reading Recovery program?

Analysis 5.1 Number and percent of pupils in the 1987-88 and 1988-89 CLEAR-RR treatment groups who in 1989-90 attended a school where a compensatory program was available and who were served by a compensatory program.

Analysis 5.2 Number and percent of pupils in the 1988-89 CLEAR-RR treatment group scoring at or above the average NCE of the district in Vocabulary, Reading Comprehension, and Total Reading on the CTBS in April 1990.

Analysis 5.3 Number and percent of pupils in the 1987-88 and 1988-89 CLEAR-RR treatment groups scoring at or above the 37%ile in Vocabulary, Reading Comprehension, and Total Reading on the CTBS in April 1990.

Analysis 5.4 Number and percent of pupils in the 1987-88 and 1988-89 CLEAR-RR treatment groups scoring at or above the 50%ile in Vocabulary, Reading Comprehension, and Total Reading on the CTBS in April 1990.

Analysis 5.5 Number and percent of pupils in the 1987-88, 1988-89, and 1989-90 CLEAR-RR treatment groups who followed a normal grade level progression.

Analysis 5.6 Number and percent of pupils in the 1987-88, 1988-89, and 1989-90 CLEAR-RR treatment groups who were later identified and served in a special education class.

Analyses 5.1-5.6 were conducted from available follow-up data for pupils who were in the 1987-88, 1988-89, and 1989-90 treatment groups. The original 1987-88 treatment group was comprised of 271 pupils, the 1988-89 treatment group was comprised of 184 pupils, and the 1989-90 treatment group was comprised of 218 pupils. The number of pupils included in the analyses for Question 5 varied due, in part, to pupil mobility, the timing of data collection, and different restrictions inherent in the various analyses.

Table 19 contains a summary of results for Analysis 5.1, the study of the 1987-88 and 1988-89 CLEAR-RR treatment group pupils who were served by a compensatory program in 1989-90. The analysis included five compensatory programs: the CLEAR-Regular Reading program , the CLEAR-Elementary Computer Assisted Instruction program, the CLEAR-Whole Language program, the CLEAR-Reading Recovery program, and the first-grade Instructional Assistant program. Analysis 5.1 did not include pupils who were on a waiting list of pupils to be served. The criterion scores used to establish eligibility and priority for program service varied from program to program and school to school.

Of the 271 pupils in the 1987-88 CLEAR-RR treatment group, 180 pupils were in a school and at a grade level where a compensatory program was in operation during the 1989-90 school year (see Table 19). Of these 180 pupils, 45.6% (82) were served in a compensatory program. By grade level, 46.0% (23) of the 50 pupils in grade 2 were served, compared to 45.4% (59) of the 130 pupils in grade 3. For the 1987-88 treatment group, the percent of discontinued and not discontinued pupils served by a compensatory program was similar. In grade 2, 50.0% (10) of the 20 discontinued pupils were served in a compensatory program

Table 19

Percent and Number of Pupils in the 1987-88 and 1988-89 CLEAR-RR Treatment Groups by Compensatory Education Program Status in 1989-90

1987-88 Treatment Group		Compensatory Education Program Status					
		Not In Comp. Ed.		In Comp. Ed.[a]		Total	
Grade in 1989-90	Pupil Category	%	(N)	%	(N)	%	(N)
2	Discontinued	50.0	(10)	50.0	(10)	100.0	(20)
	Not Discontinued	56.7	(17)	43.3	(13)	100.0	(30)
	Subtotal	54.0	(27)	46.0	(23)	100.0	(50)
3	Discontinued	54.7	(64)	45.3	(53)	100.0	(117)
	Not Discontinued	53.8	(7)	46.2	(6)	100.0	(13)
	Subtotal	54.6	(71)	45.4	(59)	100.0	(130)
	Total	54.4	(98)	45.6	(82)	100.0	(180)

(table continues)

Table 19 (continued)

Percent and Number of Pupils in the 1987-88 and 1988-89 CLEAR-RR Treatment Groups by Compensatory Education Program Status in 1989-90

1988-89 Treatment Group		Compensatory Education Program Status								Total	
		Not in Comp. Ed.		In Comp. Ed. Program							
				Chapter 1[b]		DPPFC[c]		Subtotal			
Grade in 1989-90	Pupil Category	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)
1	Discontinued	100.0	(2)	0.0	(0)	0.0	(0)	0.0	(0)	100.0	(2)
	Not Discontinued	73.0	(27)	5.4	(2)	21.6	(8)	27.0	(10)	100.0	(37)
	Subtotal	74.4	(29)	5.1	(2)	20.5	(8)	25.6	(10)	100.0	(39)
2	Discontinued	50.7	(36)	49.3	(35)	0.0	(0)	49.3	(35)	100.0	(71)
	Not Discontinued	38.5	(15)	61.5	(24)	0.0	(0)	61.5	(24)	100.0	(39)
	Subtotal	46.4	(51)	53.6	(59)	0.0	(0)	53.6	(59)	100.0	(110)
	Total	53.7	(80)	40.9	(61)	5.4	(8)	46.3	(69)	100.0	(149)

Note. Pupils served from September 25 through the end of the school year were included in the "In Comp. Ed. Program" category. Pupils on a waiting list to be served were included in the "Not in Comp. Ed." Category. Table excludes pupils in school/grade combinations where compensatory education programs were not offered.

[a]Grade 2 and 3 pupils are served by Chapter 1 programs only, including CLEAR-Regular Reading, CLEAR-Whole Language, and CLEAR-Computer Assisted Instruction.

[b]Chapter 1 program for Grade 1 pupils is CLEAR-Reading Recovery.

[c]Disadvantaged Pupil Program Fund (DPPF) program for Grade 1 pupils is the Instructional Assistant Program.

compared to 43.3% (13) of the 30 not discontinued pupils. In grade 3, 45.3% (53) of the 117 discontinued pupils were served in a compensatory program compared to 46.2% (6) of the 13 not discontinued pupils. Overall, 46.0% (63) of the 137 discontinued pupils in grades 2 and 3 were served in a compensatory program in 1989-90, two years after they completed the CLEAR-RR program.

Of the 184 pupils in the 1988-89 CLEAR-RR treatment group, 149 pupils were in a school and at a grade level where a compensatory program was in operation during the 1988-89 school year (see Table 19). Of these 149 pupils, 46.3% (69) were served in a compensatory education program. By grade level, 25.6% (10) of the 39 pupils in grade 1 were served, compared to 53.6% (59) of the 110 pupils in grade 2. For those pupils in grade 1, the two discontinued pupils were not served, compared to 27.0% (10) of the 37 not discontinued pupils. In grade 2, 49.3% (35) of the 71 discontinued pupils were served compared to 61.5% (24) of the 39 not discontinued pupils. Overall, 47.9% (35) of the 73 discontinued pupils in grades 1 and 2 were served in a compensatory program in 1989-90, the year after they completed the CLEAR-RR program.

Only pupils who had a normal grade-level progression at posttest time were included in analyses 5.2, 5.3, and 5.4. Valid CTBS Reading Comprehension and Total Reading posttest scores from April 1990 were available for 152 of the 271 pupils who were in the 1987-88 treatment group, of whom, 140 were discontinued and 12 were not discontinued. Valid CTBS Vocabulary posttest scores from April 1990 were available for 153 of the 271 pupils who were in the 1987-88 treatment group, of whom 141 were discontinued and 12 were not discontinued. Of the 184 pupils in the 1988-89 treatment group, valid CTBS Vocabulary posttest scores were available for 104 pupils, 77 discontinued and 27 not discontinued. For Reading Comprehension, 93 valid CTBS scores were available, 67 discontinued and 26 not discontinued. In Total Reading, 120 CTBS posttest scores were available, 86 discontinued and 34 not discontinued. Only pupils in the 1988-89 treatment group were included in Analysis 5.2

For Analysis 5.2 the April 1990 CTBS Vocabulary, Reading Comprehension, and Total Reading NCE scores for pupils in the 1988-89 CLEAR-RR treatment group were compared to the district average NCE scores for April 1990. The district average NCE score on the Vocabulary posttest was 50. Of the 104 treatment group pupils with valid CTBS Vocabulary posttest scores, 12 (11.5%) reached the district average NCE score. By pupil category, 13.0% (10) of the 77 discontinued pupils compared to 7.4% (2) of the 27 not discontinued pupils reached the district average NCE score. For the Reading Comprehension posttest, the district average NCE score was 48. Of the 93 treatment group pupils with valid posttest scores in Reading Comprehension, 16.1% (15) reached the district average NCE score. Of the 67 discontinued pupils, 14 (20.9%) reached the district average compared to 3.8% (1) of the 26 not discontinued pupils. On the Total Reading posttest the district average NCE score was 47. Of the 120 treatment group pupils with valid Total Reading posttest scores, 12.5% (15) reached the district average NCE score. By pupil category, 15.1% (13) of the 86 discontinued pupils reached the district average NCE score and 5.9% (2) of the 34 not discontinued reached the district average in Total Reading. Of the 15 pupils who reached the district average in Total Reading, all scored above the 37%ile and therefore would no longer qualify for a Chapter 1 compensatory reading program.

Results of Analyses 5.3 and 5.4 (see Table 20) showed that of the three subtests of the CTBS, Vocabulary, Reading Comprehension, and Total Reading, a greater percentage of pupils scored at or above the specified percentiles in Reading Comprehension than did in Vocabulary and Total Reading. In addition, the percentage of pupils who scored at or above the specified percentiles in Reading Comprehension increased for treatment group pupils two years after

Table 20

Percent and Number of Pupils in the 1987-88 and 1988-89 CLEAR-RR Treatment Groups Who Reached the 37%ile and the 50%ile on the CTBS Vocabulary, Reading Comprehension, and Total Reading Posttest in April 1990

Treatment Group	Vocabulary				Subtest: Reading Comprehension				Total Reading			
		37%ile		50%ile		37%ile		50%ile		37%ile		50%ile
	(N)	%	(N)	% (N)	(N)	%	(N)	% (N)	(N)	%	(N)	% (N)
1987-88 Grade 3												
Discontinued	(141)	20.6	(29)	9.2 (13)	(140)	35.7	(50)	15.7 (22)	(140)	26.4	(37)	10.0 (14)
Not Discontinued	(12)	0.0	(0)	0.0 (0)	(12)	0.0	(0)	0.0 (0)	(12)	0.0	(0)	0.0 (0)
Subtotal	(153)	19.0	(29)	8.5 (13)	(152)	32.9	(50)	14.5 (22)	(152)	24.3	(37)	9.2 (14)
1988-89 Grade 2												
Discontinued	(77)	26.0	(20)	13.0 (10)	(67)	34.3	(23)	19.4 (13)	(86)	29.1	(25)	10.5 (9)
Not Discontinued	(27)	11.1	(3)	7.4 (2)	(26)	7.7	(2)	3.8 (1)	(34)	5.9	(2)	2.9 (1)
Subtotal	(104)	22.1	(23)	11.5 (12)	(93)	26.9	(25)	15.1 (14)	(120)	22.5	(27)	8.3 (10)

Note. Only includes pupils who had a normal grade-level progression and for whom valid CTBS scores were available.

CLEAR-RR service (1987-88 treatment group) while the percentage of pupils who scored at or above the specified percentiles in Vocabulary decreased two years after program service. Moreover, greater percentages of discontinued pupils than not discontinued pupils scored at or above the specified percentiles.

Results for the 1987-88 treatment group indicated that in Vocabulary, 19.0% (29) of the 153 treatment group pupils with valid test data scored at or above the 37%ile and 8.5% (13) at or above the 50%ile. By pupil category, none of the 12 not discontinued pupils reached either the 37%ile or 50%ile, resulting in 20.6% (29) of the 141 discontinued pupils reaching the 37%ile and 9.2% (13) reaching the 50%ile in Vocabulary. On the Reading Comprehension subtest, 32.9% (50) of the 152 pupils with valid test data scored at or above the 37%ile and 14.5% (22) at or above the 50%ile. By pupil category, 35.7% (50) of the 140 discontinued pupils scored at or above the 37%ile and 15.7% (22) at or above the 50%ile, while none of the 12 not discontinued pupils scored at or above the 37%ile or 50%ile. For Total Reading, 24.3% (37) of the 152 pupils with valid test data scored at or above the 37%ile and 9.2% (14) pupils scored at or above the 50%ile. By pupil category, 26.4% (37) of the 140 discontinued pupils reached the 37%ile and 10.0% (14) scored at or above the 50%ile. None of the 12 not discontinued pupils reached the 37%ile. For the 1988-89 treatment group, results indicate that in Vocabulary, 22.1% (23) of the 104 treatment group pupils with valid test data scored at or above the 37%ile and 11.5% (12) reached the 50%ile. By pupil category, 26.0% (20) of the 77 discontinued pupils reached the 37%ile and 13.0% (10) scored at or above the 50%ile, while 11.1% (3) of the 27 not discontinued pupils reached the 37%ile and 7.4% (2) the 50%ile. On the Reading Comprehension subtest, 26.9% (25) of the 93 treatment group pupils scored at or above the 37%ile and 15.1% (14) reached the 50%ile. By pupil category, 34.3% (23) of the 67 discontinued pupils reached the 37%ile and 19.4% (13) the 50%ile, while 7.7% (2) of the 26 not discontinued pupils scored at or above the 37%ile and 3.8% (1) reached the 50%ile. In Total Reading, 22.5% (27) of the 120 treatment group pupils with valid test data scored at or above the 37%ile and 8.3% (10) reached the 50%ile. By pupil category, 29.1% (25) of the 86 discontinued pupils reached the 37%ile and 10.5% (9) scored at or above the 50%ile, while 5.9% (2) of the 34 not discontinued pupils scored at or above the 37%ile and 2.9% (1) reached the 50%ile.

Table 21 summarizes results for Analysis 5.5, the distributions of pupils in the 1987-88, 1988-89, and 1989-90 CLEAR-RR treatment groups who followed a normal grade-level progression. Only pupils who were enrolled in the Columbus Public Schools during the month of November in all of their follow-up years (1988, 1989, and/or 1990) were included in the analysis. The numbers of pupils included from the three treatment groups were: 222 pupils (81.9%) from the 1987-88 treatment group, 153 pupils (83.2%) from the 1988-89 treatment group, and 204 pupils (93.6%) from the 1989-90 treatment group, for a combined total of 579 pupils (86.0%) from the three treatment groups.

The percentages of pupils who followed a normal grade-level progression were as follows: 64.9% (144) of the 222 pupils from the 1987-88 treatment group followed a normal grade-level progression into the fourth grade; 66.7% (102) of the 153 pupils from the 1988-89 treatment group followed a normal progression into the third grade; and 86.3% (176) of the 204 pupils from the 1989-90 treatment group followed a normal grade-level progression into the second grade in 1990-91. Overall, 72.9% (422) of the 579 pupils in the analysis followed a normal grade-level progression and 27.1% (157) did not.

In each of the three treatment groups a greater percentage of discontinued pupils than not discontinued pupils followed the normal progression. For discontinued pupils, the percentages who followed the normal progression ranged from 79.9% for the 1987-88 treatment group pupils to 100.0% for the 1989-90

Table 21

Percent and Number of Pupils in the 1987-88, 1988-89, and 1989-90 CLEAR-RR Treatment Groups by Grade-Level Progression Through November 1990

Treatment Group	Grade-Level Progression: Not Normal %	Not Normal (N)	Normal %	Normal (N)	Total %	Total (N)
1987-88						
Discontinued	20.1	(33)	79.9	(131)	100.0	(164)
Not Discontinued	77.6	(45)	22.4	(13)	100.0	(58)
Subtotal	35.1	(78)	64.9	(144)	100.0	(222)
1988-89						
Discontinued	9.2	(8)	90.8	(79)	100.0	(87)
Not Discontinued	65.2	(43)	34.8	(23)	100.0	(66)
Subtotal	33.3	(51)	66.7	(102)	100.0	(153)
1989-90						
Discontinued	0.0	(0)	100.0	(137)	100.0	(137)
Not Discontinued	41.8	(28)	58.2	(39)	100.0	(67)
Subtotal	13.7	(28)	86.3	(176)	100.0	(204)
Total						
Discontinued	10.6	(41)	89.4	(347)	100.0	(388)
Not Discontinued	60.7	(116)	39.3	(75)	100.0	(191)
Subtotal	27.1	(157)	72.9	(422)	100.0	(579)

Note. The 1987-88 treatment group was followed for 3 years (normal progression into grade 4), the 1988-89 treatment group for 2 years (normal progression into grade 3), and the 1989-90 treatment group for 1 year (normal progression into grade 2). Only pupils enrolled in the Columbus Public Schools during November in each of their follow-up years were included in the analysis.

treatment group pupils. For not discontinued pupils the percentages who followed a normal progression ranged from 22.4% for the 1987-88 treatment group pupils to 58.2% for the 1989-90 treatment group pupils.

Over the three year period 1987-88, 1988-89, 1989-90, data indicated that the percentage of pupils retained in grade 1 for each year had increased from 1987-88 to 1988-89, but had decreased from 1988-89 to 1989-90. For 1987-88, data were available for 243 pupils and showed 15.2% (37) of those served in 1987-88 had been retained in grade 1. In 1988-89, 21.6% (37) of the 171 treatment group pupils were retained in grade 1. For 1989-90, 13.7% (28) of the 204 pupils with follow-up data were retained in grade 1, while 16.5% of the 618 pupils in the three groups combined had been retained in grade 1.

Tables 22-24 contain summaries of Analysis 5.6 which followed the special education status of pupils from the 1987-88, 1988-89, and 1989-90 CLEAR-RR treatment groups through November 1990. The analysis included four types of special education programs: communication disorder, developmental handicap, learning disability, and severe behavior handicap (see footnote, Table 22). The percentages of pupils from the treatment groups who were served in special education were: for the 1987-88 treatment group, 14.3% (37) in November 1988, 16.5% (39) in November 1989, and 18.9% (43) in November 1990; for the 1988-89 treatment group, 14.7% (25) in November 1989 and 17.1% (27) in November 1990; and for the 1989-90 treatment group, 9.3% (19) in November 1990. Over the three follow-up years, service for communication disorders related to speech, hearing, and language problems occurred more frequently in the year directly following a pupil's enrollment in the CLEAR-RR program, with increasing numbers of pupils served for developmental handicaps and learning disabilities in subsequent years. The percentages of discontinued versus not discontinued pupils in special education were compared within each grade-level and within each follow-up year within each treatment group. In general, results indicated that higher percentages of not discontinued pupils than discontinued pupils were in special education.

Table 22

Percent and Number of Pupils in the 1987-88 CLEAR-RR Treatment Group by Special Education Status in November 1988, 1989, and 1990

Follow-Up Year / Grade as of:	Pupil Category	Special Education Status: Not In Special Education %	(N)	In Special Education: Communication Disorder %	(N)	Developmental Handicap %	(N)	Learning Disability %	(N)	Subtotal %	(N)	Total %	(N)
11/88													
1	Discontinued	100.0	(1)	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)	100.0	(1)
	Not Discontinued	71.1	(27)	13.2	(5)	7.9	(3)	7.9	(3)	28.9	(11)	100.0	(38)
	Subtotal	71.8	(28)	12.8	(5)	7.7	(3)	7.7	(3)	28.2	(11)	100.0	(39)
2	Discontinued	91.0	(171)	8.0	(15)	0.0	(0)	1.1	(2)	9.0	(17)	100.0	(188)
	Not Discontinued	71.0	(22)	12.9	(4)	9.7	(3)	6.5	(2)	29.0	(9)	100.0	(31)
	Subtotal	88.1	(193)	8.7	(19)	1.4	(3)	1.8	(4)	11.9	(26)	100.0	(219)
	Total	85.7	(221)	9.3	(24)	2.3	(6)	2.7	(7)	14.3	(37)	100.0	(258)
11/89													
1	Discontinued	100.0	(1)	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)	100.0	(1)
	Not Discontinued	100.0	(1)	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)	100.0	(1)
	Subtotal	100.0	(2)	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)	100.0	(2)
2	Discontinued	91.3	(21)	0.0	(0)	4.3	(1)	4.3	(1)	8.7	(2)	100.0	(23)
	Not Discontinued	57.1	(24)	11.9	(5)	14.3	(6)	16.7	(7)	42.9	(18)	100.0	(42)
	Subtotal	69.2	(45)	7.7	(5)	10.8	(7)	12.3	(8)	30.8	(20)	100.0	(65)
3	Discontinued	90.8	(139)	5.9	(9)	0.0	(0)	3.3	(5)[a]	9.2	(14)	100.0	(153)
	Not Discontinued	70.6	(12)	5.9	(1)	11.8	(2)	11.8	(2)	29.4	(5)	100.0	(17)
	Subtotal	88.8	(151)	5.9	(10)	1.2	(2)	4.1	(7)	11.2	(19)	100.0	(170)
	Total	83.5	(198)	6.3	(15)	3.8	(9)	6.3	(15)	16.5	(39)	100.0	(237)

(table continues)

Table 22 (continued)

Percent and Number of Pupils in the 1987-88 CLEAR-RR Treatment Group by Special Education Status in November 1988, 1989, and 1990

Follow-Up Year Grade as of:	Pupil Category	Special Education Status: Not In Special Education %	(N)	In Special Education: Communication Disorder %	(N)	Developmental Handicap %	(N)	Learning Disability %	(N)	Subtotal %	(N)	Total %	(N)
11/90													
3	Discontinued	85.3	(29)	5.9	(2)	2.9	(1)	5.9	(2)	14.7	(5)	100.0	(34)
	Not Discontinued	55.3	(26)	6.4	(3)	14.9	(7)	23.4	(11)	44.7	(21)	100.0	(47)
	Subtotal	67.9	(55)	6.2	(5)	9.9	(8)	16.0	(13)	32.1	(26)	100.0	(81)
4	Discontinued	90.2	(120)	6.8	(9)	0.0	(0)	3.0	(4)	9.8	(13)	100.0	(133)
	Not Discontinued	71.4	(10)	0.0	(0)	14.3	(2)	14.3	(2)[a]	28.6	(4)	100.0	(14)
	Subtotal	88.4	(130)	6.1	(9)	1.4	(2)	4.1	(6)	11.6	(17)	100.0	(147)
	Total	81.1	(185)	6.1	(14)	4.4	(10)	8.3	(19)	18.9	(43)	100.0	(228)

[a]Pupils were categorized as behavior handicapped.

Table 23

Percent and Number of Pupils in the 1988-89 CLEAR-RR Treatment Group by Special Education Status in November 1989 and 1990

Follow-Up Year Grade as of:	Pupil Category	Special Education Status: Not In Special Education %	(N)	In Special Education: Communication Disorder %	(N)	Developmental Handicap %	(N)	Learning Disability %	(N)	Subtotal %	(N)	Total %	(N)
11/89													
1	Discontinued	100.0	(3)	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)	100.0	(3)
	Not Discontinued	66.7	(22)	6.1	(2)	18.2	(6)	9.1	(3)	33.3	(11)	100.0	(33)
	Subtotal	69.4	(25)	5.6	(2)	16.7	(6)	8.3	(3)	30.6	(11)	100.0	(36)
2	Discontinued	92.2	(83)	7.8	(7)	0.0	(0)	0.0	(0)	7.8	(7)	100.0	(90)
	Not Discontinued	84.1	(37)	9.1	(4)	4.5	(2)	2.3	(1)	15.9	(7)	100.0	(44)
	Subtotal	89.6	(120)	8.2	(11)	1.5	(2)	0.7	(1)	10.4	(14)	100.0	(134)
	Total	85.3	(145)	7.6	(13)	4.7	(8)	2.4	(4)	14.7	(25)	100.0	(170)
11/90													
1	Discontinued	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)
	Not Discontinued	0.0	(0)	0.0	(0)	100.0	(1)	0.0	(0)	100.0	(1)	100.0	(1)
	Subtotal	0.0	(0)	0.0	(0)	100.0	(1)	0.0	(0)	100.0	(1)	100.0	(1)
2	Discontinued	87.5	(7)	12.5	(1)	0.0	(0)	0.0	(0)	12.5	(1)	100.0	(8)
	Not Discontinued	70.5	(31)	2.3	(1)	20.5	(9)	6.8	(3)	29.5	(13)	100.0	(44)
	Subtotal	73.1	(38)	3.8	(2)	17.3	(9)	5.8	(3)	26.9	(14)	100.0	(52)
3	Discontinued	92.5	(74)	7.5	(6)	0.0	(0)	0.0	(0)	7.5	(6)	100.0	(80)
	Not Discontinued	76.0	(19)	8.0	(2)	12.0	(3)	4.0	(1)	24.0	(6)	100.0	(25)
	Subtotal	88.6	(93)	7.6	(8)	2.9	(3)	1.0	(1)	11.4	(12)	100.0	(105)
	Total	82.9	(131)	6.3	(10)	8.2	(13)	2.5	(4)	17.1	(27)	100.1	(158)

Table 24

Percent and Number of Pupils in the 1989-90 CLEAR-RR Treatment Group by Special Education Status in November 1990

Follow-Up Year Grade as of:	Pupil Category	Special Education Status: Not In Special Education %	(N)	In Special Education: Communication Disorder %	(N)	Developmental Handicap %	(N)	Learning Disability %	(N)	Subtotal %	(N)	Total %	(N)
11/90													
1	Discontinued	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)
	Not Discontinued	71.4	(20)	25.0	(7)	0.0	(0)	3.6	(1)	28.6	(8)	100.0	(28)
	Subtotal	71.4	(20)	25.0	(7)	0.0	(0)	3.6	(1)	28.6	(8)	100.0	(28)
2	Discontinued	95.6	(131)	4.4	(6)	0.0	(0)	0.0	(0)	4.4	(6)	100.0	(137)
	Not Discontinued	87.2	(34)	10.3	(4)	2.6	(1)	0.0	(0)	12.8	(5)	100.0	(39)
	Subtotal	93.8	(165)	5.7	(10)	0.6	(1)	0.0	(0)	6.3	(11)	100.0	(176)
	Total	90.7	(185)	8.3	(17)	0.5	(1)	0.5	(1)	9.3	(19)	100.0	(204)

Summary/Recommendations

In 1989-90 the CLEAR-RR program was located in 31 elementary schools and had a staff of 66 teachers (29.0 FTEs). The program served a total of 514 underachieving first-grade pupils who appeared unlikely to read successfully without intensive instruction. Individual service only was provided to 191 (37.2%) of the total pupils served, group service only was provided to 150 (29.2%) of the pupils, and 173 (33.7%) pupils received both individual and group service. The 364 pupils who received individual service at some time during the year were enrolled in the program for an average of 101.6 days, attended the program an average of 84.1 days, and received an average of 53.0 lessons. The number of lessons received ranged from none to 134.

Pupils were discontinued from the program based on scores on diagnostic measures indicating that they were reading at the level of their classroom and based on teacher judgment that the pupils had developed effective reading strategies. Of the 364 pupils with individual service, 39.6% (144) were discontinued, 20.3% (74) received 60 or more lessons but were not discontinued, and 40.1% (146) were not discontinued and received less than 60 lessons. Of the 153 pupils who received 60 or more lessons, 51.6% (79) were discontinued.

The treatment group consisted of the 218 pupils who received individual service at some time during the year and were either discontinued (144) or received 60 or more lessons but not discontinued (74). The evaluation sample consisted of the 184 pupils who were discontinued or had 60 or more lessons, and who had received a valid score on both the MAT6 pretest and posttest. The three desired outcomes for the 1989-90 CLEAR-RR program were met. Of the 184 pupils in the evaluation sample, 68.5% (126) had an NCE gain of 3.0 or better (desired outcome was 50.0%). Of the 218 pupils in the treatment group, retention data were available for 213. Of these, 90.6% (193) were not retained in grade one. Of the 218 treatment group pupils, 95.4% (208) had parental involvement in the program (desired outcomes for retention and parent involvement were 75.0%).

The mean NCE scores on the pretest and posttest were 18.9 (national percentile rank 7.0) and 31.1 (national percentile rank 18.5) respectively. The average growth was 12.2 NCEs. Overall, 111 (60.3%) of the 184 evaluation sample pupils gained 7.0 or more NCEs. Thirty-one (16.8%) of the evaluation sample pupils reached the average NCE (47.5) for the district as a whole. The percentages of pupils who were at various percentile levels on the posttest were as follows: (a) 15.2% (28) were at the 50%ile or above (grade level); and (b) 77.2% (142) were below the 37%ile and still eligible for Chapter 1 services.

The Classroom Teacher Survey included ratings related to the reading performance in 1989-90 of pupils who received CLEAR-RR in 1988-89. On a scale that ranged from 5 (very successful) to 1 (very unsuccessful), the average ratings on four reading items were as follows. For grade 1 (retained pupils), the average ratings ranged from 3.11 to 2.78. For grade 2 pupils, the average ratings ranged from 3.41 to 3.04. By pupil category, discontinued pupil average ratings for the four items ranged from 3.74 to 3.34, compared with 2.81 to 2.58 for not discontinued pupils. Of the teachers responding to the survey who had the CLEAR-RR program serving children at their school during 1989-90, 79.7% (47) found the program to be of value to their pupils, and 83.9% (47) found the funding for the program appropriate.

The costs per pupil served in compensatory programs were compared. The cost per pupil served in CLEAR-RR ($2,129) indicated that the 1989-90 CLEAR-RR

program was expensive to maintain in comparison to the other compensatory education programs. The costs per pupil served for the other programs were $1,151 for CLEAR-Whole Language (grade 1) and $667 for the Instructional Assistant program.

Analyses of the long-term effects of CLEAR-RR produced the following results. Of the former CLEAR-RR pupils who were in a school and at a grade level where a compensatory education program was in operation in 1989-90, 45.6% (82) of the pupils from the 1987-88 treatment group, and 46.3% (69) of the pupils from the 1988-89 treatment group were served in a compensatory program.

When tested in second grade, the district average NCE score in Vocabulary was reached by 11.5% (12) of the pupils from the 1988-89 treatment group. The district average NCE score for Vocabulary was 50. The district average NCE score in Reading Comprehension (48) was reached by 16.1% (15) of the pupils from the 1988-89 treatment group. In Total Reading, the district average NCE score (47) was reached by 12.5% (15) of the pupils from the 1988-89 treatment group. In Total Reading, 24.3% of the 1987-88 treatment group reached the 37%ile and 9.2% reached the 50%ile; 22.5% of the 1988-89 treatment group reached the 37%ile and 8.3% reached the 50%ile. In Vocabulary, 19.0% of the 1987-88 treatment group reached the 37%ile and 8.5% the 50%ile. For the 1988-89 treatment group, 22.1% reached the 37%ile and 11.5% the 50%ile. For Reading Comprehension, 32.9% of the 1987-88 treatment group reached the 37%ile and 14.5% the 50%ile, while for the 1988-89 treatment group, 26.9% reached the 37%ile and 15.1% the 50%ile in Reading Comprehension.

Of the 579 pupils from the combined 1987-88, 1988-89, and 1989-90 treatment groups who remained in Columbus Public Schools through November 1990, 72.9% (422) followed a normal grade-level progression. The retention rates for grade 1 were: 15.2% for the 1987-88 treatment group, 21.6% for the 1988-89 treatment group, 13.7% for the 1989-90 treatment group, and 16.5% for the three treatment groups combined.

The percentages of pupils from the treatment groups who were served in special education were: for the 1987-88 treatment group, 14.3% in November 1988, 16.5% in November 1989, and 18.9% in November 1990; for the 1988-89 treatment group, 14.7% in November 1989 and 17.1% in November 1990; and for the 1989-90 treatment group, 9.3% in November 1990. Pupils were served more frequently for communication disorders related to speech and hearing problems in the year directly following their enrollment in CLEAR-RR, with increasing numbers of pupils served for developmental handicaps and learning disabilities in subsequent years.

The CLEAR-Reading Recovery program has been continued during the 1990-91 school year, and it is recommended that it continue. With that in mind, the following recommendations are presented:

1. The Reading Recovery program needs to establish a consistent instructional model to be used at all program schools. During six years of existence, the program has gone through many changes, moving gradually away from two teachers sharing a classroom and Reading Recovery instructional responsibilities towards one teacher spending half of her time in Reading Recovery and half in other Chapter 1 programs. These continual changes in the structure of the program have caused some trained Reading Recovery teachers to leave the program, which then may affect the over-all quality of instruction in the program as experienced teaching is lost.

2. Early identification of pupils needing special education instruction should be emphasized. Pupils with special needs can be better served by teachers with expertise in specific special education areas. Reading Recovery is not a special education program. If pupils with special education are not identified early, they remain in the Reading Recovery program too long, creating frustration for both pupils and teachers.

3. With the comparatively high cost of the program, funding should be closely monitored. The cost of the program should be scrutinized in terms of the number of pupils served, the percent discontinued, the percent of pupils retained in grade 1, and the percent of pupils needing further compensatory education service.

4. Because Reading Recovery is a very specific instructional program, only individual one-on-one instruction should be considered and evaluated as Reading Recovery. Any type of group instruction, even if based on Reading Recovery strategies and techniques, should be developed within the framework of another instructional program.

5. Efforts should continue for exploring ways to minimize the amount of time needed to collect data on pupils served. Much teacher frustration exists because of the volume of record keeping required for the program. Teachers maintain records for both Columbus Public Schools and The Ohio State University College of Education. If both institutions used the same set of data, reporting by both institutions would be consistent and the amount of paperwork required of teachers reduced.

6. The MAT6 testing program used for Reading Recovery is a different national standardized test than is used at all other grade levels. During 1990-91, the district will be selecting a new standardized test series. The test series selected should be used at all grade levels, including grade 1. This will allow for better reporting of longitudinal data on those pupils who have received Reading Recovery service.

7. The Reading Recovery program needs to establish an absolute rather than relative criterion for discontinuing pupils that will ensure that discontinued pupils are nearer to the 36th national percentile cut off for Chapter 1 eligibility. During 1989-90, approximately 7 out of 10 discontinued pupils still qualified for a Chapter 1 program.

8. The longitudinal data indicate the retention problem needs to be explored, especially in grades 2 and 3. Even for successfully discontinued pupils, retention rates are high. Two years after service, approximately 2 in 10 discontinued pupils have been retained while one year after service, approximately 1 in 10 successfully discontinued pupil is retained.

References

Bermel, S. K. (1987, March). Language development component CLEAR-reading recovery program 1985-86 (Education Consolidation and Improvement Act - Chapter 1 Final Evaluation Report). Columbus, Ohio: Columbus (Ohio) Public Schools, Department of Evaluation Services.

Clay, M. M. (1985). The early detection of reading difficulties (3rd ed.). Aukland, New Zealand: Heinemann Education Books.

Pollock, J.S. (1989, December). Language development component CLEAR-reading recovery program 1988-89 (Education Consolidation and Improvement Act - Chapter 1 Final Evaluation Report). Columbus, Ohio: Columbus (Ohio) Public Schools, Department of Evaluation Services.

The Psychological Corporation/Harcourt Brace Jovanovich Staffwriters (1985). Metropolitan Achievement Tests. San Antonio, Texas: The Psychological Corporation/Harcourt Brace Jovanovich.

Thomas, P. M. (1989, October). Language development component CLEAR-reading recovery program 1987-88 (Education Consolidation and Improvement Act - Chapter 1 Final Evaluation Report). Columbus, Ohio: Columbus (Ohio) Public Schools, Department of Evaluation Services.

Appendix A

Teacher Census Form (TCF)

1989-90
Teacher Census Form

Social Security Number __ __ __-__ __-__ __ __ __

Name_____ Program Code_ _ _ _ _

School Assignment_____ Cost Center _ _ _

Your Department of Federal and State Programs Coordinator _____

Circle only the program(s) you are in:

ESEA Chapter 1 Programs:

(1) ADK
(2) CLEAR-Reading Recovery
(3) CLEAR Non-Public (1-8)
(4) CLEAR-Primary-Whole Language (2-3)
(5) CLEAR-Elementary Regular (2-5)
(6) CLEAR-Elementary-CAI (3-5)
(7) CLEAR-Middle Regular (6-8)
(8) CLEAR-Middle-CAI (6-8)
(9) MIC-Elementary-CAI (3-5)
(10) MIC-Elementary-CBE (3-5)
(11) MIC-Middle-CBE (6-7)

DPPF Programs:

(12) Secondary Reading (Regular)
(13) Secondary Reading (CAI)
(14) HSCA

Other (Specify)

(15) _____

Full-Time Employee_____

or

Part-Time Employee_____

For CLEAR-RR teachers:

Number of periods teach CLEAR-RR ____

Number of periods teach in another Chapter 1 Program ____

Number of periods serve as classroom teacher ____

Appendix B

Pupil Enrollment Form (PEF)

Columbus Public Schools
CHAPTER 1
CLEAR-Reading Recovery Program

PUPIL ENROLLMENT FORM
1989-90

Directions: Within **three** (3) days after the pupil's entry into the CLEAR-Reading Recovery program complete the Pupil Enrollment Form, fold over and staple, and place in the school mail to the Department of Program Evaluation. RRT is pupil's Reading Recovery Teacher. **PLEASE PRINT.**

Be sure to complete all entries on the form. This information helps verify student numbers of public school pupils.

PLEASE COMPLETE THIS FORM IN PENCIL

Today's Date ___/___/___

CLEAR-RR Program Code: 9 0 3 0 4 (1 2 3 4 5)

School Code: ___ (6 7 8)

RRT's SS Number: ___ (9 10 11 12 13 14 15 16 17)

Student Number: ___ (18 19 20 21 22 23)

Grade: 0 1 (24 25)

Date Pupil Enrolled (First day of service): ___ (39 40 41 42 43 44)

Program Name CLEAR-Reading Recovery

School Name _____

RRT's Name _____

Pupil's Name* _____
Last First MI

Pupil's Birthdate ___/___/___
Month Day Year

Pupil's Race _____

Pupil's Sex: M___ F___

*Having the correct legal name is essential to locating the pupil on the Student Master File (SMF) and to all test records we keep on the pupil.

Appendix C

Pupil Census Form (PCF)

53

TEACHER NUMBER	PROGRAM CODE
9 9 9 9 9 9 9 9 9	9 0 3 0 4

STUDENT	SCHOOL	GRADE	SEX
1 1 1 1 1 1	9 9 0	0 1	F

MALE ○
FEMALE ○

XXXXXXXXX
XXXXXXXXX
XXXXXXXXX
XXXXXXXXX
XXXXXXXXX
LESSONS

0

A1702

75

COLUMBUS PUBLIC SCHOOLS - Columbus, Ohio PUPIL CENSUS FORM

DOE (LAST NAME) JANE (FIRST NAME) R. (M I) F (SEX) 999999999 (TEACHER NUMBER)

COLUMBUS ELEMENTARY (SCHOOL) 001 (H R) 1 (GRADE)

USE A NUMBER 2 PENCIL. ERASE COMPLETELY WHEN MAKING CORRECTIONS.

WAS THIS A "NON-ENGLISH SPEAKING" STUDENT?
YES * NO *

DID THIS PUPIL BECOME QUALIFIED FOR A SPECIAL ED. PROGRAM?
YES * NO *

WAS A PARENT-GUARDIAN INVOLVED IN THE PROGRAM? (MARK ONLY ONE)
YES-INDIV. * YES-GROUP * YES-BOTH * NO PAR.INV. *

WAS THE PUPIL DISCONTINUED WHILE IN YOUR PROGRAM?
YES-INDIVIDUAL * YES-GROUP * NOT DISCONTINUED *

WAS THE 60TH LESSON BY MARCH 30, 1990?
YES * NO *

8 9
9 0

76

S O N D J F M A M J

0 1 2 3
1 0 0 0

Appendix D

Classroom Teacher Survey

Columbus Public Schools
CLEAR-Reading Recovery Program

CLASSROOM TEACHER SURVEY
1989-90

The purposes of this survey are to find out what you think about the reading performance of pupils currently in your room who were served by the CLEAR-Reading Recovery Program in 1988-89 and to find out your opinions of the CLEAR-Reading Recovery Program*. Your opinions are an important part of program evaluation. Please answer each item carefully. There are no right or wrong answers. Complete the survey and return it to Program Evaluation via school mail (by folding and stapling the survey in reverse) by **May 18, 1990**. The answers you give will be completely confidential. No reporting will be done for individual pupils or teachers. Thank you for your cooperation.

Directions:

1. Look at the **white printout** (next page) containing the names of pupils currently in your room who were served by the CLEAR-Reading Recovery Program **last year**.

2. FOR EACH PUPIL LISTED ON THE PRINTOUT, **COPY THE STUDENT NUMBER** AND **LAST NAME** AND **CIRCLE THE GRADE LEVEL** FROM THE PRINTOUT ONTO THE TOP OF THE SURVEY FORM WHICH IMMEDIATELY FOLLOWS THE PRINTOUT. THIS INFORMATION IS ESSENTIAL FOR THE SURVEY ANALYSIS.

3. Please answer items 1-21 **for each pupil**. If you have more than one pupil listed on your survey, please complete all items for the first pupil before beginning items for the next pupil.

4. Answer the remaining questions about the CLEAR-Reading Recovery Program and about the grade(s) you teach.

5. Provide comments as indicated.

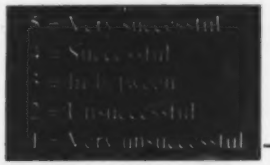
*Note. The CLEAR-Reading Recovery Program is commonly known as the Reading Recovery Program. The prefix "CLEAR" appears here because Reading Recovery is funded as part of the Compensatory Language Experiences and Reading (CLEAR) Component of the ESEA-Chapter 1 programs in the Columbus Public Schools. Reading Recovery should not be confused with the CLEAR-Elementary Program or the CLEAR-Elementary-CAI Program. This survey only covers Reading Recovery.

For items 1 - 13, circle the one response that best represents your opinion.

1. Is this pupil currently in your room?

2. Has this pupil been in your room long enough for you to evaluate his or her reading performance?

For items 3 - 13 use the following key:



Pupil #1 Student # _____ Name: _____ Grade: K 1 2 3	Pupil #2 Student # _____ Name: _____ Grade: K 1 2 3	Pupil #3 Student # _____ Name: _____ Grade: K 1 2 3	Pupil #4 Student # _____ Name: _____ Grade: K 1 2 3
YES NO YES NO	YES NO YES NO	YES NO YES NO	YES NO YES NO
If No, then do not rate this child but rate any other pupils as appropriate AND be sure to go to item 22.	If No, then do not rate this child but rate any other pupils as appropriate AND be sure to go to item 22.	If No, then do not rate this child but rate any other pupils as appropriate AND be sure to go to item 22.	If No, then do not rate this child but rate any other pupils as appropriate AND be sure to go to item 22.
5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
3. Reads and understands basal reading stories — 5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
4. Reads and understands supplemental reading materials used for instruction — 5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
5. Reads library books — 5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
6. Understands assignments — 5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
7. Works independently — 5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
8. Finishes seatwork — 5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
9. Practices self control — 5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
10. Writes own stories — 5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
11. Makes progress in reading group — 5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
12. Usually knows how to figure out new words — 5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
13. Attends class regularly — 5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1

(Continued)

For items 14-21, circle the **one** response that best represents your opinion.	Pupil #1 (Same pupil as previous page) Name:	Pupil #2 (Same pupil as previous page) Name:	Pupil #3 (Same pupil as previous page) Name:	Pupil #4 (Same pupil as previous page) Name:
Achieves suggested passing score on basal test in the area of:				
14. Comprehension	YES NO NOT SURE	YES NO NOT SURE	YES NO NOT SURE	YES NO NOT SURE
15. Vocabulary	YES NO NOT SURE	YES NO NOT SURE	YES NO NOT SURE	YES NO NOT SURE
16. Decoding	YES NO NOT SURE	YES NO NOT SURE	YES NO NOT SURE	YES NO NOT SURE
17. Is in the following reading group in my classroom	HIGH MIDDLE LOW	HIGH MIDDLE LOW	HIGH MIDDLE LOW	HIGH MIDDLE LOW
18. Earned the following letter grade in reading in the last grading period (Circle NA=NOT APPLICABLE if pupil was not enrolled):	A B C D F NA	A B C D F NA	A B C D F NA	A B C D F NA
19. Will be retained at the end of this school year	YES NO NOT SURE	YES NO NOT SURE	YES NO NOT SURE	YES NO NOT SURE
20. Was this a "non-English speaking student (ESL)?	YES NO NOT SURE	YES NO NOT SURE	YES NO NOT SURE	YES NO NOT SURE
21. Did this pupil become qualified for a Special Education program during 1989-90?	YES NO NOT SURE	YES NO NOT SURE	YES NO NOT SURE	YES NO NOT SURE

(Continued)

Items 22-24 concern the CLEAR-Reading Recovery Program. As noted on the cover page of this survey, CLEAR-Reading Recovery refers to the Reading Recovery Program only.

22. Is the CLEAR-Reading Recovery Program serving your school this year? (Please circle your response.)

YES — If YES then go to item 23

NO — If NO then go to item 25

For items 23-24 circle the one response that best represents your opinion about each item. Use the following response key:

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree
DK = Don't Know

SA A U D SD DK

23. The CLEAR- Reading Recovery Program is of value to pupils in my school.

SA A U D SD DK

24. Compared to other ways that money could be spent for compensatory reading programs in my school, I support the funding of the CLEAR-Reading Recovery program.

SA A U D SD DK

25. Circle the grade(s) you presently teach.

1 1-2(split) 2 2-3(split) OTHER _____

26. If you teach Special Education, please specify what type (otherwise leave this item blank).

Type of Special Ed. _____

You may use the space below to explain one or more of your answers or to comment on the CLEAR-Reading Recovery Program in general.

27. Comments: _____

_____

_____

Thank you! Please return this survey by **May 18, 1990.**

Appendix E

Comments from the Classroom Teacher Survey

Columbus Public Schools
CLEAR-Reading Recovery Program
COMMENTS FROM THE CLASSROOM TEACHER SURVEY

1989-90

We need a way to provide the reading recovery program for children who enter school after the testing but show a need for a one to one instructional program to succeed.

Reading Recovery teachers have made a greater contribution to the teaching of reading to at risk students than any other program. It would be a waste of money to discontinue this program. Workshops for teachers will not replace this excellent program that tutors students!

The reading recovery program gives children the opportunity to become readers, especially the children that would not have been successful. With the adaptation group the reading recovery program will be able to assist more students.

[Pupil's] lack of progress is mainly due to her lack of attendance.

This child was placed in DH in Sept. of 1989. Therefore some of the questions do not apply. I answered the questions to the best of my ability in considering the childs performance level in reading.

I feel that the strategies taught in reading recovery are very useful and should be taught to all teachers during a voluntary in-service. We could all benefit from these strategies.

He just qualified for D.H. and will be placed in a D.H. classroom as soon as mother signs necessary papers.

Why is CLEAR being taken away. It's vital!!!

I do not feel the CLEAR program should be eliminated.

Reading Recovery does not work for all students!

I have tried since September to get [Pupil] placed in a DH program. The process is so slow; she has not progressed at all this year.

I think it would be beneficial for all first grades to be Reading Recovery.

I've seen very few if any second graders who have completed Reading Recovery be successful in second grade.

Children who should have been retained in 1st can't cope well in 2nd because this program claims ch. are "recovered" and cannot be retained. A 1 to 1 is not a classroom situation - they need to learn to cope in the classroom - in class a teacher cannot give the attention the child needs - there seems to be no transference.

[Pupil] was screened by the psychologist thi year and was very border-line. He often bulks and is unwilling to try. His learning is not easy and being retained after 100 Reading Recovery lessons has not benefited him.

Need to better evaluate how children placed in program at begining of year.

Reading Recovery (R.R.) is a valuable program. The "higher-ups" need to realize that the reason the figures look so good is because of the way R.R. works -- if "water it down" it will not be as effective of a program!!

I feel the earlier you provide intervention the less likely the students will become "at risk". The second grade teachers were very upset when we lost our "CLEAR" teacher this year.

My student has made good progress but is still very low. He's low in all areas. Actually, his reading progress is higher than his progress in any other area.

[Pupil] is a "low (C) average" reader this year - is in the high reading group because this year's class does not have a "top" first-grade reading group. She made letter grade "D" last year in reading and was retained for (F) in Language Arts and math. She writes often now, but still struggles somewhat in reading skills, sequence, reasoning, cause-effect, main ideas, comprehension. I'm sure that the program helped her to feel more confident-yet she continues to show weaknesses in our reading lessons. Since she moved schools she was not able to continue the R.R. - she still needs more work.

The lowest-scoring children often turn out to be DH if they are tested, yet they must be in the program, taking the space from a child who needs a "boost" to make it. I would like to see more input from the classroom teacher and less reliance on unreliable test scores.

[Pupil] is hyperactive and has taken medication all year.

With class size and today's discipline problems, the rest of the class gains from having children out of the room. I do not want two teachers in class teaching simultaneously. Children do need an extra boost in reading. Parents are not doing it. Several students who have gone to CLEAR have advanced several reading books.

It gives the student extra reading time in a smaller group.

This child has been tested and has severe learning disabilities and Reading Recovery lessons could not accelerate his reading progress.

Use many of Reading Recovery strategies in teaching of reading.

I feel the Reading Recovery students need more support in second grade; especially those students who were served but not discontinued.

[Pupil] is making progress in reading; he is more motivated and wants to learn now. Before he was rebellious and refused to try. His comprehension, vocabulary, and decoding skills have increased but he is not yet working at his grade level.

I am undecided about the program because I know that many students can not read after going through the program. I believe the program is designed to last longer than just through the first grade; therefore it isn't as effective as it could or should be.

It seems to help some students but it also seems to have no effect on others.

Reading Recovery is an excellent program for the child having difficulty learning to read. It usually is successful at intervening with the child who is at-risk in reading. [Pupil] did not make accelerated progress because she is developmentally handicapped. She will be in a DH class for 1990-1991.

The pupils that had been served seem to have made the least progress this year of all the other students in the class. I feel these students should have had a double dose of Recovery to be effective. If they had successfully completed the materials indicated, the had a very difficult time remembering it.

[Pupil] attends two tutoring services after school - Boys club and a tutoring service on Bryden Rd. His mother works with him. The principal and I are going before the S.B.H. board for placement.

[Pupil] has been in my room for about 3 months. She is progressing slowly in reading, but she is successful and will attempt to figure out new words.

Reading Recovery should be expanded to serve more children in target schools. I'm aware that it's enormously expensive; however the down side of not serving these kids is expensive for a lifetime not just the year they're served. Many of the philosophies and strategies incorporated in R.R. should become a part of all primary teachers' reading approaches in the classroom.

It is difficult to work with the basal reading series, especially worksheets, since little if any time is spent on them in 1st grade.

Please pre-test Reading Recovery students before they enter the program to be sure that the students have the ability to complete the program. [Pupil] is easily distracted and lazy in his study skills. He can do the work if you push him.

Our school has a very dedicated CLEAR teacher. She works very well with the children. She has helped several of my students to make significant gains in their reading achievement.

Having 2 teachers in a 1st grade class, with one teaching reading only in the A.M., the 1st graders in a R Recovery classroom are not receiving enough reading instruction. With interruptions, often there isn't time to work with all groups in the A.M. & a group misses a day of instruction. If R. Recovery continues there should be 1 full time R.R. teacher in a building taking 10 children a day. Sorry, Due to the death of my husband & my personal illness, I have just returned to school on June 4.

This child was not in CLEAR this year. I feel she should have been.